
R-H5 – Alternative 4: Level of Service Reports

Existing Conditions

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	177	97	187	154	61	100	153	151	70	130	67
Future Volume (veh/h)	33	177	97	187	154	61	100	153	151	70	130	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	188	103	199	164	65	106	163	161	74	138	71
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1322	665	284	801	629	136	798	476	96	719	310
Arrive On Green	0.03	0.37	0.37	0.08	0.43	0.43	0.08	0.22	0.22	0.05	0.20	0.20
Sat Flow, veh/h	1781	3554	1462	3456	1870	1470	1781	3554	1538	1781	3554	1534
Grp Volume(v), veh/h	35	188	103	199	164	65	106	163	161	74	138	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1462	1728	1870	1470	1781	1777	1538	1781	1777	1534
Q Serve(g_s), s	1.7	3.1	3.7	4.9	4.8	2.3	5.1	3.3	7.1	3.6	2.8	3.4
Cycle Q Clear(g_c), s	1.7	3.1	3.7	4.9	4.8	2.3	5.1	3.3	7.1	3.6	2.8	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1322	665	284	801	629	136	798	476	96	719	310
V/C Ratio(X)	0.75	0.14	0.15	0.70	0.20	0.10	0.78	0.20	0.34	0.77	0.19	0.23
Avail Cap(c_a), veh/h	610	1622	788	1183	854	671	610	1622	832	610	1622	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	18.2	14.3	39.2	15.7	15.0	39.7	27.6	23.5	40.9	29.0	29.2
Incr Delay (d2), s/veh	8.7	0.1	0.1	1.2	0.1	0.0	3.6	0.1	0.4	4.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.2	1.2	2.1	2.0	0.8	2.3	1.4	2.6	1.7	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	18.3	14.5	40.3	15.8	15.0	43.3	27.7	23.9	45.7	29.1	29.4
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		326			428			430			283	
Approach Delay, s/veh		20.6			27.1			30.2			33.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.6	38.5	12.1	24.4	7.7	43.4	10.1	26.4				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	6.9	5.7	7.1	5.4	3.7	6.8	5.6	9.1				
Green Ext Time (p_c), s	0.3	2.0	0.1	0.7	0.0	0.8	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			27.8									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	5	0	4	27	0	34	46	330	34	67	316	13
Future Volume (veh/h)	5	0	4	27	0	34	46	330	34	67	316	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	0	4	29	0	37	50	359	37	73	343	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	42	114	458	0	360	79	1508	152	105	1688	68
Arrive On Green	0.17	0.00	0.17	0.17	0.00	0.17	0.04	0.32	0.32	0.06	0.34	0.34
Sat Flow, veh/h	590	242	666	1388	0	1546	1781	4696	474	1781	5027	203
Grp Volume(v), veh/h	9	0	0	29	0	37	50	258	138	73	231	126
Grp Sat Flow(s), veh/h/ln	1498	0	0	1388	0	1546	1781	1702	1766	1781	1702	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.6	0.9	1.8	1.9	1.3	1.6	1.6
Cycle Q Clear(g_c), s	0.1	0.0	0.0	0.5	0.0	0.6	0.9	1.8	1.9	1.3	1.6	1.6
Prop In Lane	0.56		0.44	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	428	0	0	458	0	360	79	1093	567	105	1143	613
V/C Ratio(X)	0.02	0.00	0.00	0.06	0.00	0.10	0.63	0.24	0.24	0.69	0.20	0.21
Avail Cap(c_a), veh/h	1919	0	0	1900	0	1978	1627	6220	3226	1627	6220	3337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	11.5	0.0	9.9	15.4	8.2	8.2	15.2	7.8	7.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	0.3	3.0	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 BackOfQ(50%), veh/ln	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.5	0.5	0.5	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.3	0.0	0.0	11.5	0.0	10.0	18.4	8.3	8.5	18.2	7.9	8.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		9			66			446			430	
Approach Delay, s/veh		11.3			10.6			9.5			9.6	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	15.9		10.5	5.9	16.4		10.5				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.3	3.9		2.1	2.9	3.6		2.6				
Green Ext Time (p_c), s	0.1	3.8		0.0	0.1	2.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
3: Pacific Hwy & Enterprise St/SPAWAR Dwy

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	6	18	29	32	10	229	646	80	36	439	161
Future Volume (veh/h)	14	6	18	29	32	10	229	646	80	36	439	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.78	1.00		0.77	1.00		0.93	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	6	19	31	34	11	246	695	86	39	472	173
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	549	363	40	529	346	289	1545	644	50	772	280
Arrive On Green	0.03	0.29	0.29	0.02	0.28	0.28	0.16	0.43	0.43	0.03	0.31	0.31
Sat Flow, veh/h	1781	1870	1235	1781	1870	1222	1781	3554	1480	1781	2487	901
Grp Volume(v), veh/h	15	6	19	31	34	11	246	695	86	39	336	309
Grp Sat Flow(s),veh/h/ln	1781	1870	1235	1781	1870	1222	1781	1777	1480	1781	1777	1611
Q Serve(g_s), s	0.9	0.2	1.2	1.8	1.4	0.7	14.2	14.5	3.7	2.3	17.0	17.3
Cycle Q Clear(g_c), s	0.9	0.2	1.2	1.8	1.4	0.7	14.2	14.5	3.7	2.3	17.0	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.56
Lane Grp Cap(c), veh/h	59	549	363	40	529	346	289	1545	644	50	551	500
V/C Ratio(X)	0.25	0.01	0.05	0.77	0.06	0.03	0.85	0.45	0.13	0.78	0.61	0.62
Avail Cap(c_a), veh/h	505	549	363	505	530	346	505	2014	839	505	1007	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	49.9	26.5	26.8	51.5	27.7	27.5	43.1	21.0	17.9	51.1	31.0	31.2
Incr Delay (d2), s/veh	0.8	0.0	0.0	10.9	0.0	0.0	9.7	0.3	0.1	9.5	3.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.3	0.9	0.6	0.2	7.0	6.0	1.3	1.2	7.7	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	26.5	26.9	62.3	27.7	27.5	52.8	21.3	18.1	60.7	34.0	34.6
LnGrp LOS	D	C	C	E	C	C	D	C	B	E	C	C
Approach Vol, veh/h	40			76			1027			684		
Approach Delay, s/veh	35.8			41.8			28.6			35.8		
Approach LOS	D			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	54.7	6.8	36.0	21.5	41.5	7.9	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.3	16.5	3.8	3.2	16.2	19.3	2.9	3.4				
Green Ext Time (p_c), s	0.0	7.7	0.0	0.0	0.9	10.9	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 32.0
HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	181	21	147	136	0	0	0	0	180	19	42
Future Volume (veh/h)	0	181	21	147	136	0	0	0	0	180	19	42
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	199	23	162	149	0				213	0	46
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	239	476	209	346	662	0				956	0	630
Arrive On Green	0.00	0.13	0.13	0.19	0.19	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1561	1781	3572	0				3563	0	1557
Grp Volume(v), veh/h	0	199	23	162	149	0				213	0	46
Grp Sat Flow(s),veh/h/ln	1781	1777	1561	1781	1702	0				1781	0	1557
Q Serve(g_s), s	0.0	1.8	0.5	2.9	1.3	0.0				1.7	0.0	0.7
Cycle Q Clear(g_c), s	0.0	1.8	0.5	2.9	1.3	0.0				1.7	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	239	476	209	346	662	0				956	0	630
V/C Ratio(X)	0.00	0.42	0.11	0.47	0.23	0.00				0.22	0.00	0.07
Avail Cap(c_a), veh/h	2972	5930	2605	2972	5680	0				3468	0	1728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.3	13.7	12.8	12.2	0.0				10.2	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.1	0.2	0.0				0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.5	0.1	0.9	0.4	0.0				0.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.5	13.8	13.9	12.4	0.0				10.3	0.0	6.6
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	222			311						259		
Approach Delay, s/veh	14.4			13.2						9.6		
Approach LOS	B			B						A		
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	8.8			15.8			11.3					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	3.8			3.7			4.9					
Green Ext Time (p_c), s	0.8			0.5			2.1					
Intersection Summary												
HCM 6th Ctrl Delay	12.4											
HCM 6th LOS	B											
Notes												

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	289	0	0	235	310	32	6	154	20	0	263
Future Volume (veh/h)	74	289	0	0	235	310	32	6	154	20	0	263
Initial Q (Qb), 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		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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	321	0	0	261	344	36	7	171	22	0	292
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	109	1496	0	0	535	473	275	9	231	26	0	344
Arrive On Green	0.06	0.42	0.00	0.00	0.30	0.30	0.15	0.15	0.15	0.23	0.00	0.23
Sat Flow, veh/h	1781	3647	0	0	1870	1569	1781	61	1498	111	0	1476
Grp Volume(v), veh/h	82	321	0	0	261	344	36	0	178	314	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1569	1781	0	1559	1588	0	0
Q Serve(g_s), s	3.5	4.4	0.0	0.0	9.3	15.1	1.3	0.0	8.4	14.6	0.0	0.0
Cycle Q Clear(g_c), s	3.5	4.4	0.0	0.0	9.3	15.1	1.3	0.0	8.4	14.6	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.96	0.07		0.93
Lane Grp Cap(c), veh/h	109	1496	0	0	535	473	275	0	240	370	0	0
V/C Ratio(X)	0.75	0.21	0.00	0.00	0.49	0.73	0.13	0.00	0.74	0.85	0.00	0.00
Avail Cap(c_a), veh/h	693	2765	0	0	1382	1221	924	0	809	824	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.6	14.2	0.0	0.0	22.1	24.1	28.2	0.0	31.1	28.3	0.0	0.0
Incr Delay (d2), s/veh	11.7	0.0	0.0	0.0	0.8	2.6	0.1	0.0	1.7	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.6	0.0	0.0	3.6	5.4	0.6	0.0	3.2	5.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	14.2	0.0	0.0	22.9	26.7	28.2	0.0	32.8	30.4	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	403				605				214			
Approach Delay, s/veh	21.0				25.1				32.1			
Approach LOS	C				C				C			
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	36.9		22.0		9.2	27.6	18.3					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	6.4		16.6		5.5	17.1	10.4					
Green Ext Time (p_c), s	1.3		1.4		0.2	4.9	0.8					

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	387	77	293	398	0	0	0	0	376	229	159
Future Volume (veh/h)	0	387	77	293	398	0	0	0	0	376	229	159
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	395	79	299	406	0				384	234	162
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1939	862	379	2515	0				626	329	272
Arrive On Green	0.00	0.55	0.55	0.22	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1545
Grp Volume(v), veh/h	0	395	79	299	406	0				384	234	162
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1545
Q Serve(g_s), s	0.0	4.8	2.0	6.9	0.0	0.0				8.4	9.9	8.1
Cycle Q Clear(g_c), s	0.0	4.8	2.0	6.9	0.0	0.0				8.4	9.9	8.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1939	862	379	2515	0				626	329	272
V/C Ratio(X)	0.00	0.20	0.09	0.79	0.16	0.00				0.61	0.71	0.60
Avail Cap(c_a), veh/h	0	1939	862	703	2515	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.8	9.1	31.9	0.0	0.0				32.0	32.6	31.9
Incr Delay (d2), s/veh	0.0	0.2	0.2	1.4	0.1	0.0				0.4	1.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	0.6	2.5	0.0	0.0				3.6	4.5	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.0	9.3	33.2	0.1	0.0				32.4	33.7	32.7
LnGrp LOS	A	A	A	C	A	A				C	C	C
Approach Vol, veh/h		474			705						780	
Approach Delay, s/veh		9.9			14.2						32.8	
Approach LOS		A			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.6	50.7		19.7		64.3						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.9	6.8		11.9		2.0						
Green Ext Time (p_c), s	0.4	2.6		1.9		2.9						

Intersection Summary

HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑	↖		↖↗				
Traffic Volume (veh/h)	252	519	0	0	554	526	132	256	20	0	0	0
Future Volume (veh/h)	252	519	0	0	554	526	132	256	20	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	255	524	0	0	560	531	133	259	20			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1241	2672	0	0	1189	519	210	452	35			
Arrive On Green	0.72	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1596	3444	265			
Grp Volume(v), veh/h	255	524	0	0	560	531	149	126	137			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1553	1791	1702	1813			
Q Serve(g_s), s	2.0	0.0	0.0	0.0	10.5	28.1	6.6	5.8	5.9			
Cycle Q Clear(g_c), s	2.0	0.0	0.0	0.0	10.5	28.1	6.6	5.8	5.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.89		0.15			
Lane Grp Cap(c), veh/h	1241	2672	0	0	1189	519	235	224	238			
V/C Ratio(X)	0.21	0.20	0.00	0.00	0.47	1.02	0.63	0.56	0.57			
Avail Cap(c_a), veh/h	1241	2672	0	0	1189	519	599	569	607			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.9	0.0	0.0	0.0	22.1	28.0	34.6	34.2	34.3			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.3	45.2	1.1	0.8	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.0	0.0	4.2	15.8	2.9	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.9	0.2	0.0	0.0	23.4	73.2	35.6	35.1	35.1			
LnGrp LOS	A	A	A	A	C	F	D	D	D			
Approach Vol, veh/h	779			1091			412					
Approach Delay, s/veh	2.7			47.6			35.3					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.1			35.1			33.0			15.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+l1), s	2.0			4.0			30.1			8.6		
Green Ext Time (p_c), s	4.3			0.5			0.0			1.5		

Intersection Summary

HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	17	40	12	1111	18	0	0	0
Future Volume (veh/h)	0	0	0	0	17	40	12	1111	18	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	51	15	1424	23			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	70	96	3420	55			
Arrive On Green				0.00	0.06	0.06	0.68	0.68	0.68			
Sat Flow, veh/h				0	498	1155	15	5004	80			
Grp Volume(v), veh/h				0	0	73	535	444	483			
Grp Sat Flow(s),veh/h/ln				0	0	1653	1865	1549	1685			
Q Serve(g_s), s				0.0	0.0	1.9	0.0	5.5	5.5			
Cycle Q Clear(g_c), s				0.0	0.0	1.9	5.5	5.5	5.5			
Prop In Lane				0.00		0.70	0.03		0.05			
Lane Grp Cap(c), veh/h				0	0	100	1360	1059	1152			
V/C Ratio(X)				0.00	0.00	0.73	0.39	0.42	0.42			
Avail Cap(c_a), veh/h				0	0	1525	2657	2142	2331			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	20.0	3.0	3.0	3.0			
Incr Delay (d2), s/veh				0.0	0.0	3.8	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.8	0.8	0.7	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	23.8	3.3	3.4	3.4			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					73			1462				
Approach Delay, s/veh					23.8			3.4				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		35.3						8.1				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		7.5						3.9				
Green Ext Time (p_c), s		22.1						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.4									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	143	56	360	557	56	212	326	57	56	309	100
Future Volume (veh/h)	77	143	56	360	557	56	212	326	57	56	309	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	154	60	387	599	60	228	351	61	60	332	108
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	403	339	426	659	66	267	1254	211	78	691	212
Arrive On Green	0.06	0.22	0.22	0.24	0.39	0.39	0.15	0.29	0.29	0.04	0.18	0.18
Sat Flow, veh/h	1781	1870	1574	1781	1672	167	1781	4382	736	1781	3843	1176
Grp Volume(v), veh/h	83	154	60	387	0	659	228	270	142	60	292	148
Grp Sat Flow(s),veh/h/ln	1781	1870	1574	1781	0	1839	1781	1702	1714	1781	1702	1615
Q Serve(g_s), s	4.1	6.2	2.7	18.6	0.0	29.8	11.0	5.4	5.7	2.9	6.8	7.3
Cycle Q Clear(g_c), s	4.1	6.2	2.7	18.6	0.0	29.8	11.0	5.4	5.7	2.9	6.8	7.3
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.43	1.00		0.73
Lane Grp Cap(c), veh/h	108	403	339	426	0	725	267	974	491	78	612	290
V/C Ratio(X)	0.77	0.38	0.18	0.91	0.00	0.91	0.85	0.28	0.29	0.77	0.48	0.51
Avail Cap(c_a), veh/h	606	848	714	606	0	834	606	2315	1166	606	2315	1098
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	40.8	29.6	28.2	32.6	0.0	25.2	36.6	24.4	24.5	41.8	32.5	32.7
Incr Delay (d2), s/veh	4.3	0.2	0.1	11.1	0.0	12.7	3.0	0.3	0.6	5.9	1.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.8	1.0	9.2	0.0	15.1	4.9	2.1	2.3	1.4	2.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	29.8	28.3	43.7	0.0	37.9	39.6	24.7	25.1	47.7	33.5	35.1
LnGrp LOS	D	C	C	D	A	D	D	C	C	D	C	D
Approach Vol, veh/h	297			1046			640			500		
Approach Delay, s/veh	33.8			40.1			30.1			35.7		
Approach LOS	C			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.6	25.5	23.9	17.6	21.2	9.7	39.7					
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I4.5), s	14.5	7.7	20.6	8.2	13.0	9.3	6.1	31.8				
Green Ext Time (p_c), s	0.1	5.2	0.5	0.7	0.3	5.5	0.1	3.0				

Intersection Summary

HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	96	150	95	312	0	0	0	0	86	1352	707
Future Volume (veh/h)	0	96	150	95	312	0	0	0	0	86	1352	707
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	109	170	108	355	0				98	1536	803
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	424	359	175	527	0				1128	2156	990
Arrive On Green	0.00	0.23	0.23	0.23	0.23	0.00				0.63	0.63	0.63
Sat Flow, veh/h	0	1870	1585	522	2410	0				1781	3404	1563
Grp Volume(v), veh/h	0	109	170	230	233	0				98	1536	803
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1230	1617	0				1781	1702	1563
Q Serve(g_s), s	0.0	4.4	8.6	12.7	12.1	0.0				2.0	28.0	36.0
Cycle Q Clear(g_c), s	0.0	4.4	8.6	17.2	12.1	0.0				2.0	28.0	36.0
Prop In Lane	0.00		1.00	0.47		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	424	359	336	367	0				1128	2156	990
V/C Ratio(X)	0.00	0.26	0.47	0.68	0.64	0.00				0.09	0.71	0.81
Avail Cap(c_a), veh/h	0	604	512	471	522	0				1150	2198	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	31.1	35.3	32.5	0.0				6.6	11.4	12.9
Incr Delay (d2), s/veh	0.0	0.1	0.4	1.8	1.4	0.0				0.1	1.3	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
%ile BackOfQ(50%),veh/ln	0.0	2.0	3.3	5.1	4.9	0.0				0.7	9.6	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.6	31.5	37.2	33.8	0.0				6.7	12.7	18.4
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		279			463						2437	
Approach Delay, s/veh		30.7			35.5						14.3	
Approach LOS		C			D						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				27.8		65.1		27.8				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				10.6		38.0		19.2				
Green Ext Time (p_c), s				0.7		20.8		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			18.8									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Existing Conditions with Project

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖		↖	↑↑				
Traffic Volume (veh/h)	105	18	56	0	35	21	372	1055	15	0	0	0
Future Volume (veh/h)	105	18	56	0	35	21	372	1055	15	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	111	19	59	0	37	22	392	1111	16			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	355	47	1099	0	185	110	935	1881	27			
Arrive On Green	0.17	0.17	0.17	0.00	0.17	0.17	0.52	0.52	0.52			
Sat Flow, veh/h	987	274	1571	0	1091	649	1781	3584	52			
Grp Volume(v), veh/h	130	0	59	0	0	59	392	551	576			
Grp Sat Flow(s),veh/h/ln	1262	0	1571	0	0	1739	1781	1777	1859			
Q Serve(g_s), s	2.6	0.0	0.0	0.0	0.0	1.0	4.8	7.6	7.6			
Cycle Q Clear(g_c), s	3.7	0.0	0.0	0.0	0.0	1.0	4.8	7.6	7.6			
Prop In Lane	0.85		1.00	0.00		0.37	1.00		0.03			
Lane Grp Cap(c), veh/h	401	0	1099	0	0	295	935	932	976			
V/C Ratio(X)	0.32	0.00	0.05	0.00	0.00	0.20	0.42	0.59	0.59			
Avail Cap(c_a), veh/h	1338	0	2153	0	0	1462	1472	1469	1537			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.0	0.0	1.7	0.0	0.0	12.7	5.2	5.8	5.8			
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.3	0.6	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.6	0.0	0.0	0.4	1.0	1.6	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.5	0.0	1.7	0.0	0.0	12.9	5.5	6.4	6.4			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h	189			59			1519					
Approach Delay, s/veh	10.5			12.9			6.2					
Approach LOS	B			B			A					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	23.2			12.5			12.5					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+I1), s	9.6			5.7			3.0					
Green Ext Time (p_c), s	9.1			0.9			0.2					
Intersection Summary												
HCM 6th Ctrl Delay			6.9									
HCM 6th LOS			A									
Notes												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	41	51	51	2	2	54	570	38	38	684	23
Future Volume (veh/h)	24	41	51	51	2	2	54	570	38	38	684	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	45	56	56	2	2	59	626	42	42	752	25
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	486	183	228	398	208	208	80	2134	651	123	2070	69
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.42	0.42	0.04	0.41	0.41
Sat Flow, veh/h	1407	756	941	1290	856	856	1781	5106	1557	3456	5070	168
Grp Volume(v), veh/h	26	0	101	56	0	4	59	626	42	42	504	273
Grp Sat Flow(s),veh/h/ln	1407	0	1697	1290	0	1713	1781	1702	1557	1728	1702	1834
Q Serve(g_s), s	0.7	0.0	2.3	1.8	0.0	0.1	1.6	4.0	0.8	0.6	5.0	5.1
Cycle Q Clear(g_c), s	0.8	0.0	2.3	4.1	0.0	0.1	1.6	4.0	0.8	0.6	5.0	5.1
Prop In Lane	1.00		0.55	1.00		0.50	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	486	0	411	398	0	415	80	2134	651	123	1390	749
V/C Ratio(X)	0.05	0.00	0.25	0.14	0.00	0.01	0.73	0.29	0.06	0.34	0.36	0.36
Avail Cap(c_a), veh/h	1294	0	1386	1139	0	1399	1091	6255	1908	2117	4170	2247
HCM Platoon Ratio	1.00	1.00	1.00	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	14.4	0.0	14.9	16.6	0.0	14.1	23.1	9.5	8.5	23.1	10.1	10.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.1	0.0	0.0	4.8	0.1	0.1	0.6	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	0.5	0.0	0.0	0.7	1.2	0.2	0.2	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	15.1	16.7	0.0	14.1	27.9	9.6	8.6	23.7	10.2	10.4
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	B	B
Approach Vol, veh/h	127				60		727				819	
Approach Delay, s/veh	14.9				16.5		11.0				11.0	
Approach LOS	B				B		B				B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.1	26.2	16.7		6.6	25.7	16.7					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	12.6	6.0	4.3		3.6	7.1	6.1					
Green Ext Time (p_c), s	0.1	9.0	0.4		0.1	5.7	0.1					

Intersection Summary

HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Notes

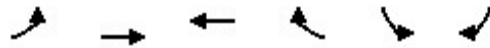
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑			↑		
Traffic Vol, veh/h	0	2971	10	0	2163	0	0	0	3	0	0	0
Future Vol, veh/h	0	2971	10	0	2163	0	0	0	3	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	3265	11	0	2377	0	0	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1638	-	-	1190
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	76	0	0	155
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	76	-	-	155
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	54.5	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	76	-	-	-	-
HCM Lane V/C Ratio	0.043	-	-	-	-
HCM Control Delay (s)	54.5	-	-	-	0
HCM Lane LOS	F	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	-



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1113	1879	2397	52	27	84
Future Volume (veh/h)	1113	1879	2397	52	27	84
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1265	2135	2724	0	31	95
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	814	4162	2802		135	121
Arrive On Green	0.24	0.83	0.56	0.00	0.08	0.08
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1265	2135	2724	0	31	95
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	27.8	14.6	62.3	0.0	1.9	7.0
Cycle Q Clear(g_c), s	27.8	14.6	62.3	0.0	1.9	7.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	814	4162	2802		135	121
V/C Ratio(X)	1.55	0.51	0.97		0.23	0.79
Avail Cap(c_a), veh/h	814	4162	2802		479	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.22	0.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	2.8	24.9	0.0	51.3	53.6
Incr Delay (d2), s/veh	255.3	0.5	3.8	0.0	0.3	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.3	2.5	22.6	0.0	0.9	6.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	300.4	3.3	28.7	0.0	51.6	57.9
LnGrp LOS	F	A	C		D	E
Approach Vol, veh/h		3400	2724	A	126	
Approach Delay, s/veh		113.8	28.7		56.3	
Approach LOS		F	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		103.8		14.2	32.2	71.6
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		75.8		31.7	27.8	* 44
Max Q Clear Time (g_c+I1), s		16.6		9.0	29.8	64.3
Green Ext Time (p_c), s		54.8		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			75.6			
HCM 6th LOS			E			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	786	37	38	998	60	103	275	61	52	167	580
Future Volume (veh/h)	312	786	37	38	998	60	103	275	61	52	167	580
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.94	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	335	845	40	41	1073	65	111	296	66	56	180	624
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	358	1617	77	227	1364	83	134	908	191	72	934	574
Arrive On Green	0.20	0.47	0.47	0.17	0.53	0.53	0.08	0.22	0.22	0.04	0.18	0.18
Sat Flow, veh/h	1781	3451	163	1781	3403	206	1781	4170	878	1781	5106	1398
Grp Volume(v), veh/h	335	435	450	41	560	578	111	238	124	56	180	624
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1833	1781	1702	1644	1781	1702	1398
Q Serve(g_s), s	25.9	24.1	24.1	2.8	35.5	35.5	8.6	8.2	8.9	4.4	4.2	25.6
Cycle Q Clear(g_c), s	25.9	24.1	24.1	2.8	35.5	35.5	8.6	8.2	8.9	4.4	4.2	25.6
Prop In Lane	1.00		0.09	1.00		0.11	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	358	833	861	227	712	735	134	741	358	72	934	574
V/C Ratio(X)	0.94	0.52	0.52	0.18	0.79	0.79	0.83	0.32	0.35	0.78	0.19	1.09
Avail Cap(c_a), veh/h	382	833	861	227	712	735	244	741	358	244	934	574
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.98	0.98	0.98	0.97	0.97	0.97
Uniform Delay (d), s/veh	55.0	26.2	26.2	51.9	27.9	27.9	63.8	46.1	46.3	66.5	48.4	44.0
Incr Delay (d2), s/veh	29.3	2.3	2.3	1.5	7.5	7.3	4.8	0.3	0.6	6.3	0.1	62.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	10.5	10.9	1.3	14.7	15.1	4.1	3.5	3.7	2.1	1.8	29.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	28.5	28.4	53.4	35.4	35.2	68.6	46.4	47.0	72.9	48.6	106.7
LnGrp LOS	F	C	C	D	D	D	E	D	D	E	D	F
Approach Vol, veh/h	1220			1179			473			860		
Approach Delay, s/veh	43.8			35.9			51.7			92.4		
Approach LOS	D			D			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.1	35.5	23.7	70.8	14.9	30.6	32.5	61.9				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+10), s	10.4	10.9	4.8	26.1	10.6	27.6	27.9	37.5				
Green Ext Time (p_c), s	0.0	2.1	0.0	8.9	0.1	0.0	0.2	3.9				

Intersection Summary

HCM 6th Ctrl Delay 53.5
HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↖↑↑	↗
Traffic Volume (veh/h)	0	854	41	31	201	0	0	0	0	223	196	895
Future Volume (veh/h)	0	854	41	31	201	0	0	0	0	223	196	895
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	960	46	35	226	0				251	220	1006
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1736	83	60	2021	0				616	1293	537
Arrive On Green	0.00	1.00	1.00	0.03	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3543	165	1781	3647	0				1781	3741	1553
Grp Volume(v), veh/h	0	495	511	35	226	0				251	220	1006
Grp Sat Flow(s),veh/h/ln	0	1777	1838	1781	1777	0				1781	1870	1553
Q Serve(g_s), s	0.0	0.0	0.0	2.7	4.1	0.0				15.0	5.7	48.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.7	4.1	0.0				15.0	5.7	48.4
Prop In Lane	0.00		0.09	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	894	925	60	2021	0				616	1293	537
V/C Ratio(X)	0.00	0.55	0.55	0.58	0.11	0.00				0.41	0.17	1.87
Avail Cap(c_a), veh/h	0	894	925	313	2021	0				616	1293	537
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.91	0.91	0.82	0.82	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	66.7	13.9	0.0				34.9	31.8	45.8
Incr Delay (d2), s/veh	0.0	2.2	2.2	2.7	0.1	0.0				2.0	0.3	400.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.6	1.3	1.6	0.0				7.0	2.7	78.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	2.2	2.2	69.3	14.0	0.0				36.9	32.1	445.9
LnGrp LOS	A	A	A	E	B	A				D	C	F
Approach Vol, veh/h		1006			261						1477	
Approach Delay, s/veh		2.2			21.4						314.8	
Approach LOS		A			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.1	77.1		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I1), s	14.7	2.0		50.4		6.1						
Green Ext Time (p_c), s	0.0	2.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	172.3
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Existing Conditions with Project

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↰↱			↰↱	↱			
Traffic Volume (veh/h)	690	377	0	0	212	100	43	72	29	0	0	0
Future Volume (veh/h)	690	377	0	0	212	100	43	72	29	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	734	401	0	0	226	106	46	77	31			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1529	1509	0	0	718	324	90	164	108			
Arrive On Green	0.44	0.81	0.00	0.00	0.30	0.30	0.07	0.07	0.07			
Sat Flow, veh/h	3456	1870	0	0	2461	1070	1266	2318	1529			
Grp Volume(v), veh/h	734	401	0	0	167	165	66	57	31			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1661	1807	1777	1529			
Q Serve(g_s), s	12.0	4.2	0.0	0.0	5.8	6.1	2.8	2.5	1.5			
Cycle Q Clear(g_c), s	12.0	4.2	0.0	0.0	5.8	6.1	2.8	2.5	1.5			
Prop In Lane	1.00		0.00	0.00		0.64	0.70		1.00			
Lane Grp Cap(c), veh/h	1529	1509	0	0	539	504	128	126	108			
V/C Ratio(X)	0.48	0.27	0.00	0.00	0.31	0.33	0.51	0.46	0.29			
Avail Cap(c_a), veh/h	1529	1509	0	0	580	542	386	380	327			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00	0.00	1.00	1.00	0.98	0.98	0.98			
Uniform Delay (d), s/veh	15.8	1.9	0.0	0.0	21.4	21.6	35.8	35.7	35.3			
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.0	0.1	0.1	1.2	0.9	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.3	0.6	0.0	0.0	2.3	2.2	1.3	1.1	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	2.3	0.0	0.0	21.6	21.7	37.0	36.6	35.8			
LnGrp LOS	B	A	A	A	C	C	D	D	D			
Approach Vol, veh/h	1135				332				154			
Approach Delay, s/veh	11.1				21.6				36.6			
Approach LOS	B				C				D			
Timer - Assigned Phs	2				5	6	8					
Phs Duration (G+Y+Rc), s	69.4				40.3	29.2	10.6					
Change Period (Y+Rc), s	4.9				4.9	* 4.9	4.9					
Max Green Setting (Gmax), s	53.1				22.1	* 26	17.1					
Max Q Clear Time (g_c+I1), s	6.2				14.0	8.1	4.8					
Green Ext Time (p_c), s	1.5				1.9	1.1	0.4					

Intersection Summary

HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	80	1940	554	0	0	1870
Future Volume (veh/h)	80	1940	554	0	0	1870
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	86	0	596	0	0	2011
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	150		2044	0	671	5192
Arrive On Green	0.08	0.00	0.41	0.00	0.00	0.83
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	86	0	596	0	0	2011
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	5.1	0.0	8.8	0.0	0.0	9.0
Cycle Q Clear(g_c), s	5.1	0.0	8.8	0.0	0.0	9.0
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	150		2044	0	671	5192
V/C Ratio(X)	0.57		0.29	0.00	0.00	0.39
Avail Cap(c_a), veh/h	487		2044	0	730	5192
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.57	0.00	0.84	0.00	0.00	0.84
Uniform Delay (d), s/veh	48.5	0.0	21.7	0.0	0.0	2.4
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	3.3	0.0	0.0	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.2	0.0	21.8	0.0	0.0	2.6
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	86	A	596			2011
Approach Delay, s/veh	49.2		21.8			2.6
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	45.8	50.0			95.8	14.2
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.1	20.6			45.1	30.1
Max Q Clear Time (g_c+I10), s	10.8	10.8			11.0	7.1
Green Ext Time (p_c), s	0.0	3.4			23.8	0.1

Intersection Summary

HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	210	1915	121	118	302	0	0	212	23
Future Volume (veh/h)	0	0	0	210	1915	121	118	302	0	0	212	23
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				223	2037	129	126	321	0	0	226	24
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				270	2633	170	154	1461	0	0	657	67
Arrive On Green				0.19	0.19	0.19	0.17	0.57	0.00	0.00	0.14	0.14
Sat Flow, veh/h				471	4590	297	1781	5274	0	0	4810	472
Grp Volume(v), veh/h				874	729	786	126	321	0	0	163	87
Grp Sat Flow(s),veh/h/ln				1847	1702	1810	1781	1702	0	0	1702	1709
Q Serve(g_s), s				50.0	44.5	45.2	7.5	3.4	0.0	0.0	4.7	5.1
Cycle Q Clear(g_c), s				50.0	44.5	45.2	7.5	3.4	0.0	0.0	4.7	5.1
Prop In Lane				0.26		0.16	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				1059	976	1038	154	1461	0	0	482	242
V/C Ratio(X)				0.82	0.75	0.76	0.82	0.22	0.00	0.00	0.34	0.36
Avail Cap(c_a), veh/h				1059	976	1038	155	1629	0	0	591	297
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.58	0.58	0.58	0.67	0.67	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				39.3	37.0	37.3	44.7	17.5	0.0	0.0	42.6	42.7
Incr Delay (d2), s/veh				4.4	3.1	3.0	18.8	0.1	0.0	0.0	0.3	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				26.0	21.1	22.7	3.8	1.3	0.0	0.0	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.7	40.1	40.4	63.5	17.6	0.0	0.0	42.8	43.3
LnGrp LOS				D	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2389			447			250	
Approach Delay, s/veh					41.5			30.5			43.0	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.4	22.0		69.0	37.4				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+l1), s				9.5	7.1		52.0	5.4				
Green Ext Time (p_c), s				0.0	0.9		8.9	2.4				
Intersection Summary												
HCM 6th Ctrl Delay					40.0							
HCM 6th LOS					D							
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	262	2208	0	0	0	0	0	154	50
Future Volume (veh/h)	0	0	0	262	2208	0	0	0	0	0	154	50
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				276	2324	0				0	162	53
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				370	3356	0				0	764	226
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				522	4895	0				0	4025	1142
Grp Volume(v), veh/h				975	1625	0				0	141	74
Grp Sat Flow(s),veh/h/ln				1844	1702	0				0	1702	1594
Q Serve(g_s), s				54.0	47.7	0.0				0.0	3.8	4.3
Cycle Q Clear(g_c), s				54.0	47.7	0.0				0.0	3.8	4.3
Prop In Lane				0.28		0.00				0.00		0.72
Lane Grp Cap(c), veh/h				1309	2417	0				0	675	316
V/C Ratio(X)				0.74	0.67	0.00				0.00	0.21	0.23
Avail Cap(c_a), veh/h				1309	2417	0				0	675	316
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				32.9	30.5	0.0				0.0	36.9	37.1
Incr Delay (d2), s/veh				3.9	1.5	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
%ile BackOfQ(50%),veh/ln				27.9	22.1	0.0				0.0	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.8	32.0	0.0				0.0	37.6	38.8
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2600						215	
Approach Delay, s/veh					33.8						38.0	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.7		83.3						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.8		78.1						
Max Q Clear Time (g_c+I1), s				6.3		56.0						
Green Ext Time (p_c), s				0.3		4.9						
Intersection Summary												
HCM 6th Ctrl Delay											34.1	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2376	114	67	90	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2376	114	67	90	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2528	121	71	96	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3498	165	293	438	0			
Arrive On Green				0.00	0.23	0.23	0.20	0.20	0.00			
Sat Flow, veh/h				0	5159	236	1434	2235	0			
Grp Volume(v), veh/h				0	1715	934	89	78	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1822	1799	1777	0			
Q Serve(g_s), s				0.0	51.1	52.2	4.6	4.0	0.0			
Cycle Q Clear(g_c), s				0.0	51.1	52.2	4.6	4.0	0.0			
Prop In Lane				0.00		0.13	0.80		0.00			
Lane Grp Cap(c), veh/h				0	2386	1277	368	363	0			
V/C Ratio(X)				0.00	0.72	0.73	0.24	0.21	0.00			
Avail Cap(c_a), veh/h				0	2386	1277	368	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	32.3	32.7	36.6	36.4	0.0			
Incr Delay (d2), s/veh				0.0	1.9	3.7	1.6	1.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	23.8	26.6	2.2	1.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	34.2	36.4	38.2	37.7	0.0			
LnGrp LOS				A	C	D	D	D	A			
Approach Vol, veh/h					2649			167				
Approach Delay, s/veh					35.0			38.0				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						54.2		6.6				
Green Ext Time (p_c), s						20.0		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				35.1								
HCM 6th LOS				D								

SDCRAA ADP EIR
22: Columbia St & Hawthorn St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	299	2455	0	0	0	0	0	209	38
Future Volume (veh/h)	0	0	0	299	2455	0	0	0	0	0	209	38
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				305	2505	0				0	213	39
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				373	3305	0				0	733	312
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				532	4884	0				0	3647	1514
Grp Volume(v), veh/h				1057	1753	0				0	213	39
Grp Sat Flow(s),veh/h/ln				1844	1702	0				0	1777	1514
Q Serve(g_s), s				59.8	52.5	0.0				0.0	5.6	2.3
Cycle Q Clear(g_c), s				59.8	52.5	0.0				0.0	5.6	2.3
Prop In Lane				0.29		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1292	2386	0				0	733	312
V/C Ratio(X)				0.82	0.73	0.00				0.00	0.29	0.12
Avail Cap(c_a), veh/h				1292	2386	0				0	733	312
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				35.6	32.8	0.0				0.0	36.9	35.6
Incr Delay (d2), s/veh				5.8	2.1	0.0				0.0	1.0	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				31.5	24.5	0.0				0.0	2.5	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.4	34.9	0.0				0.0	37.9	36.4
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2810						252	
Approach Delay, s/veh					37.3						37.6	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+l1), s				7.6		61.8						
Green Ext Time (p_c), s				1.3		14.2						
Intersection Summary												
HCM 6th Ctrl Delay											37.4	
HCM 6th LOS											D	

SDCRAA ADP EIR
23: State St & Hawthorn St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2739	89	31	35	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2739	89	31	35	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2824	92	32	36	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3697	119	279	353	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5246	163	1576	2086	0			
Grp Volume(v), veh/h				0	1882	1034	36	32	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1837	1792	1777	0			
Q Serve(g_s), s				0.0	37.0	38.5	1.9	1.6	0.0			
Cycle Q Clear(g_c), s				0.0	37.0	38.5	1.9	1.6	0.0			
Prop In Lane				0.00		0.09	0.88		0.00			
Lane Grp Cap(c), veh/h				0	2479	1337	318	315	0			
V/C Ratio(X)				0.00	0.76	0.77	0.11	0.10	0.00			
Avail Cap(c_a), veh/h				0	2479	1337	318	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	9.1	9.3	38.0	37.9	0.0			
Incr Delay (d2), s/veh				0.0	2.2	4.4	0.7	0.6	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	12.2	14.5	0.9	0.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	11.3	13.7	38.7	38.5	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2916			68				
Approach Delay, s/veh					12.2			38.6				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						40.5		3.9				
Green Ext Time (p_c), s						34.4		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	117	415	1	98	0	0	0	17
Future Vol, veh/h	0	0	0	0	117	415	1	98	0	0	0	17
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	121	428	1	101	0	0	0	18
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	82	554	-	-	-	301
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	82	554	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	896	439	0	0	0	695
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	917	512	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	874	437	-	-	-	692
Mov Cap-2 Maneuver				-	-	-	874	437	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	894	509	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		15.7		10.3				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	437	-	-	692								
HCM Lane V/C Ratio	0.231	-	-	0.025								
HCM Control Delay (s)	15.7	-	-	10.3								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	0.9	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Existing Conditions with Project
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	553	75	1336	662	0
Future Volume (veh/h)	0	0	0	0	0	0	0	553	75	1336	662	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	628	85	1518	752	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1034	320	3543	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.21	0.21	0.94	1.00	0.00
Sat Flow, veh/h		0					0	5149	1543	5023	1826	0
Grp Volume(v), veh/h		0.0					0	628	85	1518	752	0
Grp Sat Flow(s),veh/h/ln							0	1662	1543	1674	1826	0
Q Serve(g_s), s							0.0	12.6	5.1	3.4	0.0	0.0
Cycle Q Clear(g_c), s							0.0	12.6	5.1	3.4	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1034	320	3543	1740	0
V/C Ratio(X)							0.00	0.61	0.27	0.43	0.43	0.00
Avail Cap(c_a), veh/h							0	1205	373	3543	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh							0.0	39.5	36.6	1.1	0.0	0.0
Incr Delay (d2), s/veh							0.0	1.6	1.1	0.1	0.7	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	5.1	2.0	0.6	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	41.1	37.7	1.2	0.7	0.0
LnGrp LOS							A	D	D	A	A	A
Approach Vol, veh/h								713			2270	
Approach Delay, s/veh								40.7			1.0	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	82.0	28.0					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	5.4	14.6					2.0					
Green Ext Time (p_c), s	7.3	5.8					7.6					
Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
26: Pacific Hwy & W Grape St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑					↑↑↑↑		↑	↑↑↑↑	
Traffic Volume (veh/h)	41	1283	60	0	0	0	0	369	195	71	342	0
Future Volume (veh/h)	41	1283	60	0	0	0	0	369	195	71	342	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	45	1410	66				0	405	214	78	376	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	95	3177	962				0	627	280	108	1456	0
Arrive On Green	0.21	0.21	0.21				0.00	0.18	0.18	0.12	0.57	0.00
Sat Flow, veh/h	153	5113	1549				0	3572	1521	1781	5274	0
Grp Volume(v), veh/h	546	909	66				0	405	214	78	376	0
Grp Sat Flow(s),veh/h/ln	1863	1702	1549				0	1702	1521	1781	1702	0
Q Serve(g_s), s	28.4	25.6	3.8				0.0	12.1	14.7	4.6	4.1	0.0
Cycle Q Clear(g_c), s	28.4	25.6	3.8				0.0	12.1	14.7	4.6	4.1	0.0
Prop In Lane	0.08		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1157	2115	962				0	627	280	108	1456	0
V/C Ratio(X)	0.47	0.43	0.07				0.00	0.65	0.76	0.72	0.26	0.00
Avail Cap(c_a), veh/h	1157	2115	962				0	916	409	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.49	0.49	0.49				0.00	1.00	1.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	27.8	26.7	18.1				0.0	41.5	42.6	47.4	17.8	0.0
Incr Delay (d2), s/veh	0.7	0.3	0.1				0.0	1.3	5.5	2.9	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
%ile BackOfQ(50%),veh/ln	4.3	11.7	1.3				0.0	5.1	5.9	2.0	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	27.0	18.1				0.0	42.8	48.1	50.3	17.8	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1521							619		454		
Approach Delay, s/veh	27.2							44.6		23.4		
Approach LOS	C							D		C		
Timer - Assigned Phs	2		4		7		8					
Phs Duration (G+Y+Rc), s	73.2		36.8		11.1		25.7					
Change Period (Y+Rc), s	4.9		5.4		4.4		* 5.4					
Max Green Setting (Gmax), s	45.6		54.1		20.1		* 30					
Max Q Clear Time (g_c+I1), s	30.4		6.1		6.6		16.7					
Green Ext Time (p_c), s	11.2		2.1		0.1		3.6					

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1482	34	0	0	0	0	0	0	108	304	0
Future Volume (veh/h)	0	1482	34	0	0	0	0	0	0	108	304	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1594	37							116	327	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2991	69							417	1293	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5301	119							1271	4108	0
Grp Volume(v), veh/h	0	1057	574							165	278	0
Grp Sat Flow(s),veh/h/ln	0	1702	1847							1807	1702	0
Q Serve(g_s), s	0.0	30.7	30.8							9.2	8.2	0.0
Cycle Q Clear(g_c), s	0.0	30.7	30.8							9.2	8.2	0.0
Prop In Lane	0.00		0.06							0.70		0.00
Lane Grp Cap(c), veh/h	0	1984	1076							593	1117	0
V/C Ratio(X)	0.00	0.53	0.53							0.28	0.25	0.00
Avail Cap(c_a), veh/h	0	1984	1076							593	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	31.0	31.0							37.1	36.6	0.0
Incr Delay (d2), s/veh	0.0	1.0	1.9							1.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.3	15.7							4.6	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.0	32.8							38.2	37.2	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1631									443	
Approach Delay, s/veh		32.3									37.6	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		69.0		41.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		64.1		36.1								
Max Q Clear Time (g_c+l1), s		32.8		11.2								
Green Ext Time (p_c), s		5.1		1.2								
Intersection Summary												
HCM 6th Ctrl Delay			33.4									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	49	1557	0	0	0	0	0	101	156	0	0	0
Future Volume (veh/h)	49	1557	0	0	0	0	0	101	156	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	53	1674	0				0	109	168			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	87	2934	0				0	599	505			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	152	5283	0				0	1870	1496			
Grp Volume(v), veh/h	649	1078	0				0	109	168			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1496			
Q Serve(g_s), s	35.1	31.6	0.0				0.0	4.8	9.2			
Cycle Q Clear(g_c), s	35.1	31.6	0.0				0.0	4.8	9.2			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1069	1953	0				0	599	505			
V/C Ratio(X)	0.61	0.55	0.00				0.00	0.18	0.33			
Avail Cap(c_a), veh/h	1069	1953	0				0	599	505			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	33.2	31.8	0.0				0.0	25.7	27.2			
Incr Delay (d2), s/veh	2.6	1.1	0.0				0.0	0.7	1.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ft	8.2	14.6	0.0				0.0	2.2	3.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.8	32.9	0.0				0.0	26.4	29.0			
LnGrp LOS	D	C	A				A	C	C			
Approach Vol, veh/h		1727						277				
Approach Delay, s/veh		34.0						28.0				
Approach LOS		C						C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		68.0						42.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		63.1						37.1				
Max Q Clear Time (g_c+l1), s		37.1						11.2				
Green Ext Time (p_c), s		14.7						1.9				
Intersection Summary												
HCM 6th Ctrl Delay			33.2									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1634	53	0	0	0	0	0	0	168	339	0
Future Volume (veh/h)	0	1634	53	0	0	0	0	0	0	168	339	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1667	54							171	346	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2498	81							747	1489	0
Arrive On Green	0.00	0.16	0.16							0.14	0.14	0.00
Sat Flow, veh/h	0	5247	164							1781	3647	0
Grp Volume(v), veh/h	0	1117	604							171	346	0
Grp Sat Flow(s),veh/h/ln	0	1702	1839							1781	1777	0
Q Serve(g_s), s	0.0	33.9	33.9							9.4	9.5	0.0
Cycle Q Clear(g_c), s	0.0	33.9	33.9							9.4	9.5	0.0
Prop In Lane	0.00		0.09							1.00		0.00
Lane Grp Cap(c), veh/h	0	1674	905							747	1489	0
V/C Ratio(X)	0.00	0.67	0.67							0.23	0.23	0.00
Avail Cap(c_a), veh/h	0	1674	905							747	1489	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	37.6	37.6							31.6	31.6	0.0
Incr Delay (d2), s/veh	0.0	2.1	3.9							0.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.9	17.7							4.6	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	39.7	41.5							32.3	32.0	0.0
LnGrp LOS	A	D	D							C	C	A
Approach Vol, veh/h		1721									517	
Approach Delay, s/veh		40.4									32.1	
Approach LOS		D									C	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		59.0	51.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		54.1	46.1									
Max Q Clear Time (g_c+l1), s		35.9	11.5									
Green Ext Time (p_c), s		11.6	3.1									
Intersection Summary												
HCM 6th Ctrl Delay			38.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	30	1762	0	0	0	0	0	42	68	0	0	0
Future Volume (veh/h)	30	1762	0	0	0	0	0	42	68	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	33	1915	0				0	46	74			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	60	3682	0				0	357	318			
Arrive On Green	0.23	0.23	0.00				0.00	0.20	0.20			
Sat Flow, veh/h	84	5354	0				0	1870	1585			
Grp Volume(v), veh/h	732	1216	0				0	46	74			
Grp Sat Flow(s),veh/h/ln	1866	1702	0				0	1777	1585			
Q Serve(g_s), s	38.0	34.1	0.0				0.0	2.3	4.3			
Cycle Q Clear(g_c), s	38.0	34.1	0.0				0.0	2.3	4.3			
Prop In Lane	0.05		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1325	2417	0				0	357	318			
V/C Ratio(X)	0.55	0.50	0.00				0.00	0.13	0.23			
Avail Cap(c_a), veh/h	1325	2417	0				0	357	318			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	26.8	25.3	0.0				0.0	36.1	36.8			
Incr Delay (d2), s/veh	1.7	0.8	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			
%ile BackOfQ(50%),veh/ft	9.5	15.8	0.0				0.0	1.1	1.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	26.0	0.0				0.0	36.8	38.5			
LnGrp LOS	C	C	A				A	D	D			
Approach Vol, veh/h												
1948												
Approach Delay, s/veh												
26.9												
Approach LOS												
C												
Timer - Assigned Phs												
2												
8												
Phs Duration (G+Y+Rc), s												
83.0												
27.0												
Change Period (Y+Rc), s												
4.9												
4.9												
Max Green Setting (Gmax), s												
78.1												
22.1												
Max Q Clear Time (g_c+l1), s												
40.0												
6.3												
Green Ext Time (p_c), s												
21.3												
0.5												
Intersection Summary												
HCM 6th Ctrl Delay												
27.6												
HCM 6th LOS												
C												



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	807	920	77	68	170
Future Volume (veh/h)	50	807	920	77	68	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	52	841	958	80	71	177
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	68	3887	3297	275	448	205
Arrive On Green	0.01	0.26	1.00	1.00	0.13	0.13
Sat Flow, veh/h	1781	5149	4844	390	3456	1585
Grp Volume(v), veh/h	52	841	680	358	71	177
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1746	1728	1585
Q Serve(g_s), s	3.4	15.7	0.0	0.0	2.2	12.9
Cycle Q Clear(g_c), s	3.4	15.7	0.0	0.0	2.2	12.9
Prop In Lane	1.00			0.22	1.00	1.00
Lane Grp Cap(c), veh/h	68	3887	2341	1230	448	205
V/C Ratio(X)	0.77	0.22	0.29	0.29	0.16	0.86
Avail Cap(c_a), veh/h	319	3887	2341	1230	884	406
HCM Platoon Ratio	0.33	0.33	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	57.7	15.5	0.0	0.0	45.6	50.3
Incr Delay (d2), s/veh	6.3	0.1	0.3	0.6	0.1	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.9	0.1	0.2	0.9	11.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.1	15.6	0.3	0.6	45.7	54.4
LnGrp LOS	E	B	A	A	D	D
Approach Vol, veh/h		893	1038		248	
Approach Delay, s/veh		18.4	0.4		51.9	
Approach LOS		B	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.8		20.2	8.9	88.9
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		17.7		14.9	5.4	2.0
Green Ext Time (p_c), s		18.1		0.4	0.0	20.4
Intersection Summary						
HCM 6th Ctrl Delay			13.6			
HCM 6th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	85	785	9	16	984	5	0	13	13	46	0	11
Future Volume (veh/h)	85	785	9	16	984	5	0	13	13	46	0	11
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		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	809	9	16	1014	0	0	13	13	47	0	11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	748	3619	40	60	1567		35	16	16	227	0	102
Arrive On Green	0.84	1.00	1.00	0.03	0.31	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5081	56	1781	4985	1585	1781	841	841	3456	0	1556
Grp Volume(v), veh/h	88	529	289	16	1014	0	0	0	26	47	0	11
Grp Sat Flow(s), veh/h/ln	1781	1662	1814	1781	1662	1585	1781	0	1683	1728	0	1556
Q Serve(g_s), s	1.0	0.0	0.0	1.0	20.7	0.0	0.0	0.0	1.8	1.5	0.0	0.8
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.0	20.7	0.0	0.0	0.0	1.8	1.5	0.0	0.8
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	748	2367	1292	60	1567		35	0	33	227	0	102
V/C Ratio(X)	0.12	0.22	0.22	0.26	0.65		0.00	0.00	0.79	0.21	0.00	0.11
Avail Cap(c_a), veh/h	748	2367	1292	168	1567		251	0	237	999	0	450
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	0.0	0.0	55.6	34.8	0.0	0.0	0.0	57.6	52.2	0.0	51.9
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.9	2.1	0.0	0.0	0.0	14.7	0.2	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.4	0.1	0.1	0.5	8.3	0.0	0.0	0.0	0.9	0.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	5.6	0.2	0.4	56.4	36.9	0.0	0.0	0.0	72.4	52.4	0.0	52.0
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	906			1030			A			26		
Approach Delay, s/veh	0.8			37.2			72.4			52.3		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.7			12.7	55.2	42.9		7.2				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+13, s)	2.0			3.5	3.0	22.7		3.8				
Green Ext Time (p_c), s	0.0	8.2		0.1	0.0	8.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 21.8

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
33: Harbor Island Dr & N Harbor Dr

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	0	507	86	258	755	0	93	40	151	0	0	0
Future Volume (veh/h)	0	507	86	258	755	0	93	40	151	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	0.95		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	523	89	266	778	0	96	41	0	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	789	3428	1203	329	2081	0	295	168		2	3	0
Arrive On Green	0.00	0.69	0.69	0.10	0.33	0.00	0.09	0.09	0.00	0.00	0.00	0.00
Sat Flow, veh/h	1781	4985	1543	3456	6537	0	3283	1870	1585	1781	3741	0
Grp Volume(v), veh/h	0	523	89	266	778	0	96	41	0	0	0	0
Grp Sat Flow(s), veh/h/ln	1781	1662	1543	1728	1570	0	1641	1870	1585	1781	1870	0
Q Serve(g_s), s	0.0	4.3	1.6	8.9	11.2	0.0	3.2	2.4	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.3	1.6	8.9	11.2	0.0	3.2	2.4	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	789	3428	1203	329	2081	0	295	168		2	3	0
V/C Ratio(X)	0.00	0.15	0.07	0.81	0.37	0.00	0.32	0.24		0.00	0.00	0.00
Avail Cap(c_a), veh/h	789	3428	1203	618	2081	0	657	374		303	637	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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.4	3.1	52.3	30.1	0.0	50.3	50.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	1.8	0.5	0.0	0.2	0.3	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	1.3	0.7	3.8	4.1	0.0	1.3	1.1	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	6.5	3.2	54.1	30.6	0.0	50.6	50.2	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	D	C	A	D	D		A	A	A
Approach Vol, veh/h	612			1044			137			0		
Approach Delay, s/veh	6.0			36.6			50.5			0.0		
Approach LOS	A			D			D					
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	86.8		0.0	58.0	44.5		15.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	1.1	13.6		20.1	15.6	* 39		23.6				
Max Q Clear Time (g_c+110), s	1.0	6.3		0.0	0.0	13.2		5.2				
Green Ext Time (p_c), s	0.3	3.2		0.0	0.0	11.6		0.3				

Intersection Summary

HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1	9	2	3	13	5	175	2	26	267	73
Future Volume (veh/h)	45	1	9	2	3	13	5	175	2	26	267	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	58	0	0	2	10	10	5	186	2	28	284	78
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	178	94	0	15	77	77	189	1051	11	212	836	224
Arrive On Green	0.05	0.00	0.00	0.05	0.05	0.05	0.11	0.29	0.29	0.12	0.31	0.31
Sat Flow, veh/h	3563	1870	0	309	1546	1558	1781	3599	39	1781	2740	735
Grp Volume(v), veh/h	58	0	0	12	0	10	5	92	96	28	182	180
Grp Sat Flow(s), veh/h/ln	1781	1870	0	1855	0	1558	1781	1777	1861	1781	1777	1697
Q Serve(g_s), s	0.5	0.0	0.0	0.2	0.0	0.2	0.1	1.3	1.3	0.5	2.6	2.7
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.2	0.0	0.2	0.1	1.3	1.3	0.5	2.6	2.7
Prop In Lane	1.00		0.00	0.17		1.00	1.00		0.02	1.00		0.43
Lane Grp Cap(c), veh/h	178	94	0	92	0	77	189	519	544	212	542	518
V/C Ratio(X)	0.33	0.00	0.00	0.13	0.00	0.13	0.03	0.18	0.18	0.13	0.34	0.35
Avail Cap(c_a), veh/h	4356	2287	0	2268	0	1905	1361	2716	2845	2178	2716	2595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	14.9	0.0	14.9	13.1	8.6	8.6	12.9	8.8	8.8
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.2	0.0	0.3	0.0	0.1	0.1	0.1	0.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.3	0.4	0.1	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.8	0.0	0.0	15.1	0.0	15.1	13.1	8.8	8.8	13.0	9.1	9.1
LnGrp LOS	B	A	A	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	58			22			193			390		
Approach Delay, s/veh	15.8			15.1			8.9			9.4		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	13.6		5.6	7.5	14.0		5.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax)	40.0	50.0		40.0	25.0	50.0		40.0				
Max Q Clear Time (g_c+I)	12.5	3.3		2.5	2.1	4.7		2.2				
Green Ext Time (p_c), s	0.0	0.9		0.1	0.0	1.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	2	3	47	91	188
Future Volume (veh/h)	134	2	3	47	91	188
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	0	3	0	94	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	580	304	1044		194	
Arrive On Green	0.16	0.00	0.56	0.00	0.06	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	139	0	3	0	94	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.8	0.0	0.0	0.0	1.4	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.0	1.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	580	304	1044		194	
V/C Ratio(X)	0.24	0.00	0.00		0.48	
Avail Cap(c_a), veh/h	3313	1739	1044		2571	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.6	0.0	5.3	0.0	24.6	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	0.0	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.8	0.0	5.3	0.0	26.5	0.0
LnGrp LOS	B	A	A		C	
Approach Vol, veh/h		139	3	A	94	A
Approach Delay, s/veh		19.8	5.3		26.5	
Approach LOS		B	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.7		7.0		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+I1), s		3.8		3.4		2.0
Green Ext Time (p_c), s		0.5		0.3		0.0

Intersection Summary

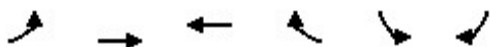
HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	9	80	45	0	0	1
Future Vol, veh/h	9	80	45	0	0	1
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	93	52	0	0	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	59	0	-	0	127	35
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1543	-	-	-	854	1030
Stage 1	-	-	-	-	956	-
Stage 2	-	-	-	-	947	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1533	-	-	-	836	1021
Mov Cap-2 Maneuver	-	-	-	-	836	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	940	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		8.5		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1533	-	-	-	-	1021
HCM Lane V/C Ratio	0.007	-	-	-	-	0.001
HCM Control Delay (s)	7.4	0	-	-	-	8.5
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1746	1122	0	0	0
Future Volume (veh/h)	0	1746	1122	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	0	1838	1181	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	2	4761	7063		3	1
Arrive On Green	0.00	0.96	0.96	0.00	0.00	0.00
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	0	1838	1181	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	0.0	3.1	1.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.1	1.0	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2	4761	7063		3	1
V/C Ratio(X)	0.00	0.39	0.17		0.00	0.00
Avail Cap(c_a), veh/h	319	4761	7063		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.2	0.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.4	0.2	0.0	0.0	0.0
LnGrp LOS	A	A	A		A	A
Approach Vol, veh/h		1838	1181	A	0	
Approach Delay, s/veh		0.4	0.2		0.0	
Approach LOS		A	A			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.0		0.0	0.0	118.0
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		5.1		0.0	0.0	3.0
Green Ext Time (p_c), s		57.9		0.0	0.0	26.6
Intersection Summary						
HCM 6th Ctrl Delay			0.3			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3058	17	60	970	0	6	0	82	0	0	0
Future Volume (veh/h)	0	3058	17	60	970	0	6	0	82	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3253	18	64	1032	0	6	0	87	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	2	4813	1183	108	5243	0	172	0	112	61	147	0
Arrive On Green	0.00	0.77	0.77	0.06	1.00	0.00	0.08	0.00	0.08	0.00	0.00	0.00
Sat Flow, veh/h	1781	6281	1544	3456	6537	0	1412	0	1421	1310	1870	0
Grp Volume(v), veh/h	0	3253	18	64	1032	0	6	0	87	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1570	1544	1728	1570	0	1412	0	1421	1310	1870	0
Q Serve(g_s), s	0.0	29.6	0.3	2.1	0.0	0.0	0.5	0.0	7.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	29.6	0.3	2.1	0.0	0.0	0.5	0.0	7.1	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	4813	1183	108	5243	0	172	0	112	61	147	0
V/C Ratio(X)	0.00	0.68	0.02	0.59	0.20	0.00	0.03	0.00	0.78	0.00	0.00	0.00
Avail Cap(c_a), veh/h	168	4813	1183	618	5243	0	357	0	297	232	392	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.7	3.3	54.6	0.0	0.0	50.3	0.0	53.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	1.9	0.1	0.0	0.0	0.0	4.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.2	0.1	0.9	0.0	0.0	0.2	0.0	2.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	7.5	3.3	56.5	0.1	0.0	50.3	0.0	57.7	0.0	0.0	0.0
LnGrp LOS	A	A	A	E	A	A	D	A	E	A	A	A
Approach Vol, veh/h	3271		1096			93			0			
Approach Delay, s/veh	7.4		3.4			57.2			0.0			
Approach LOS	A		A			E						
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.1	95.7	14.2		0.0	103.8	14.2					
Change Period (Y+Rc), s	4.4	5.3	4.9		4.4	5.3	4.9					
Max Green Setting (Gmax), s	21.5	57.6	24.7		11.1	67.6	24.7					
Max Q Clear Time (g_c+I), s	14.5	31.6	0.0		0.0	2.0	9.1					
Green Ext Time (p_c), s	0.1	25.9	0.0		0.0	22.3	0.1					
Intersection Summary												
HCM 6th Ctrl Delay			7.5									
HCM 6th LOS			A									
Notes												

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑			↖ ↑↑↑				↖		↖ ↖		↖
Traffic Volume (veh/h)	11	2982	0	6	860	72	0	0	0	5	0	5
Future Volume (veh/h)	11	2982	0	6	860	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	3139	0	6	905	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4112	0	60	5041	419	0	33	0	181	0	27
Arrive On Green	0.00	0.27	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	5946	494	0	1870	0	3396	0	1571
Grp Volume(v), veh/h	12	3139	0	6	715	266	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1729	0	1870	0	1698	0	1571
Q Serve(g_s), s	0.8	68.3	0.0	0.4	3.2	3.3	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.8	68.3	0.0	0.4	3.2	3.3	0.0	0.0	0.0	0.2	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.29	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4112	0	60	3994	1466	0	33	0	181	0	27
V/C Ratio(X)	0.61	0.76	0.00	0.10	0.18	0.18	0.00	0.00	0.00	0.03	0.00	0.18
Avail Cap(c_a), veh/h	168	4112	0	168	3994	1466	0	471	0	977	0	395
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.00	0.98	0.98	0.98	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.5	32.4	0.0	55.3	1.6	1.6	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	7.7	1.0	0.0	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	30.4	0.0	0.2	0.4	0.6	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	33.3	0.0	55.5	1.7	1.9	0.0	0.0	0.0	57.1	0.0	58.3
LnGrp LOS	E	C	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3151			987			0			10		
Approach Delay, s/veh	33.5			2.1			0.0			57.7		
Approach LOS	C			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	62.6			29.7	11.1	62.6		29.7				
Max Q Clear Time (g_c+I), s	70.3			2.4	2.8	5.3		0.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	17.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
40: Coast Guard Dwy/Terminal Link Rd & N Harbor Dr

Existing Conditions with Project
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱								
Traffic Volume (veh/h)	0	2945	2	31	1035	0	0	0	19	0	0	0
Future Volume (veh/h)	0	2945	2	31	1035	0	0	0	19	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	0	3167	2	33	1113	0						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	2	4314	3	48	4621	0						
Arrive On Green	0.00	0.84	0.84	0.03	0.93	0.00						
Sat Flow, veh/h	1781	5145	3	1781	5149	0						
Grp Volume(v), veh/h	0	2045	1124	33	1113	0						
Grp Sat Flow(s),veh/h/ln	1781	1662	1825	1781	1662	0						
Q Serve(g_s), s	0.0	18.4	18.5	1.3	1.5	0.0						
Cycle Q Clear(g_c), s	0.0	18.4	18.5	1.3	1.5	0.0						
Prop In Lane	1.00		0.00	1.00		0.00						
Lane Grp Cap(c), veh/h	2	2786	1530	48	4621	0						
V/C Ratio(X)	0.00	0.73	0.73	0.69	0.24	0.00						
Avail Cap(c_a), veh/h	749	2796	1536	749	4621	0						
HCM Platoon Ratio	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	0.00						
Uniform Delay (d), s/veh	0.0	2.4	2.4	34.4	0.2	0.0						
Incr Delay (d2), s/veh	0.0	1.5	2.7	6.4	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	0.6	1.1	0.6	0.0	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.9	5.1	40.8	0.3	0.0						
LnGrp LOS	A	A	A	D	A	A						
Approach Vol, veh/h	3169				1146							
Approach Delay, s/veh	4.3				1.5							
Approach LOS	A				A							
Timer - Assigned Phs	1	2				5	6					
Phs Duration (G+Y+Rc), s	6.3	65.0				0.0	71.3					
Change Period (Y+Rc), s	4.4	5.2				4.4	5.2					
Max Green Setting (Gmax), s	30.0	60.0				30.0	60.0					
Max Q Clear Time (g_c+I), s	13.3	20.5				0.0	3.5					
Green Ext Time (p_c), s	0.0	39.3				0.0	26.1					
Intersection Summary												
HCM 6th Ctrl Delay			3.6									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	88	0	0	1447	274
Future Vol, veh/h	0	88	0	0	1447	274
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	98	0	0	1608	304

Major/Minor	Minor2		Major2	
Conflicting Flow All	1770	966	-	0
Stage 1	1770	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	124	219	-	-
Stage 1	80	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	122	217	-	-
Mov Cap-2 Maneuver	122	-	-	-
Stage 1	79	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	34.5	0
HCM LOS	D	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	217	-	-
HCM Lane V/C Ratio	-	0.451	-	-
HCM Control Delay (s)	0	34.5	-	-
HCM Lane LOS	A	D	-	-
HCM 95th %tile Q(veh)	-	2.1	-	-

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Existing Conditions with Project
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	113	626	122	71	744	314	51	34	27	189	88	114
Future Volume (veh/h)	113	626	122	71	744	314	51	34	27	189	88	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	127	703	137	80	836	353	57	38	30	212	99	128
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	2883	872	101	2737	830	260	221	178	345	441	383
Arrive On Green	0.17	1.00	1.00	0.11	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	5106	1545	1781	5106	1548	807	889	719	1319	1777	1546
Grp Volume(v), veh/h	127	703	137	80	836	353	60	0	65	212	99	128
Grp Sat Flow(s),veh/h/ln	1781	1702	1545	1781	1702	1548	853	0	1562	1319	1777	1546
Q Serve(g_s), s	8.1	0.0	0.0	5.2	0.0	0.0	5.1	0.0	3.9	17.7	5.2	8.0
Cycle Q Clear(g_c), s	8.1	0.0	0.0	5.2	0.0	0.0	13.1	0.0	3.9	21.6	5.2	8.0
Prop In Lane	1.00		1.00	1.00		1.00	0.95		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	152	2883	872	101	2737	830	271	0	388	345	441	383
V/C Ratio(X)	0.83	0.24	0.16	0.79	0.31	0.43	0.22	0.00	0.17	0.61	0.22	0.33
Avail Cap(c_a), veh/h	319	2883	872	319	2737	830	331	0	467	412	532	462
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.95	0.95	0.95	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	0.0	0.0	51.6	0.0	0.0	41.5	0.0	34.8	43.3	35.3	36.4
Incr Delay (d2), s/veh	4.2	0.2	0.4	4.9	0.3	1.5	0.2	0.0	0.1	5.2	0.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.1	2.3	0.1	0.3	1.5	0.0	1.5	6.3	2.4	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	0.2	0.4	56.5	0.3	1.5	41.6	0.0	34.9	48.5	36.1	37.8
LnGrp LOS	D	A	A	E	A	A	D	A	C	D	D	D
Approach Vol, veh/h		967			1269			125			439	
Approach Delay, s/veh		7.1			4.2			38.1			42.6	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	72.7		34.2	14.5	69.4		34.2				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	21.1	* 47		35.3	21.1	46.2		35.3				
Max Q Clear Time (g_c+I1), s	7.2	2.0		23.6	10.1	2.0		15.1				
Green Ext Time (p_c), s	0.1	10.4		3.4	0.1	21.6		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	431	0	0	559	311	0	0	0	415	0	22
Future Volume (veh/h)	13	431	0	0	559	311	0	0	0	415	0	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	15	507	0	0	658	0	0	0	0	512	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	2603	0	2	2423		0	2	1	596	313	0
Arrive On Green	0.01	0.73	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3556	1870	0
Grp Volume(v), veh/h	15	507	0	0	658	0	0	0	0	512	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1778	1870	0
Q Serve(g_s), s	1.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Cycle Q Clear(g_c), s	1.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	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	23	2603	0	2	2423		0	2	1	596	313	0
V/C Ratio(X)	0.64	0.19	0.00	0.00	0.27		0.00	0.00	0.00	0.86	0.00	0.00
Avail Cap(c_a), veh/h	152	2603	0	152	2423		0	157	133	1118	588	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.76	0.00	0.00
Uniform Delay (d), s/veh	57.9	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.8	0.0	0.0
Incr Delay (d2), s/veh	10.3	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	7.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	5.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	48.9	0.0	0.0
LnGrp LOS	E	A	A	A	A		A	A	A	D	A	A
Approach Vol, veh/h	522			658			0			512		
Approach Delay, s/veh	6.9			0.3			0.0			48.9		
Approach LOS	A			A						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	92.3		25.7	6.0	86.4		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 41		37.1	10.1	39.8		9.9				
Max Q Clear Time (g_c+I), s	0.0	7.3		18.5	3.0	2.0		0.0				
Green Ext Time (p_c), s	0.0	9.3		1.0	0.0	9.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	337	188	88	186	81	120	594	56	101	780	84
Future Volume (veh/h)	278	337	188	88	186	81	120	594	56	101	780	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	293	355	198	93	196	85	126	625	59	106	821	88
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	275	457	250	116	410	294	152	1594	150	131	1531	164
Arrive On Green	0.15	0.21	0.21	0.07	0.12	0.12	0.09	0.49	0.49	0.07	0.47	0.47
Sat Flow, veh/h	1781	2190	1196	1781	3554	1536	1781	3279	309	1781	3230	346
Grp Volume(v), veh/h	293	287	266	93	196	85	126	338	346	106	452	457
Grp Sat Flow(s),veh/h/ln	1781	1777	1609	1781	1777	1536	1781	1777	1812	1781	1777	1799
Q Serve(g_s), s	17.9	17.7	18.2	6.0	6.0	3.6	8.1	14.0	14.1	6.8	20.8	20.8
Cycle Q Clear(g_c), s	17.9	17.7	18.2	6.0	6.0	3.6	8.1	14.0	14.1	6.8	20.8	20.8
Prop In Lane	1.00		0.74	1.00		1.00	1.00		0.17	1.00		0.19
Lane Grp Cap(c), veh/h	275	371	336	116	410	294	152	863	880	131	842	853
V/C Ratio(X)	1.07	0.77	0.79	0.80	0.48	0.29	0.83	0.39	0.39	0.81	0.54	0.54
Avail Cap(c_a), veh/h	275	545	494	170	891	502	243	863	880	243	842	853
HCM Platoon Ratio	1.00	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	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	43.3	43.5	53.5	48.0	19.8	52.2	18.9	18.9	52.9	21.5	21.5
Incr Delay (d2), s/veh	72.8	2.1	3.0	9.0	0.3	0.2	6.0	1.3	1.3	4.4	2.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	7.9	7.5	3.0	2.7	1.5	3.9	6.0	6.2	3.2	9.1	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	121.9	45.3	46.6	62.4	48.3	20.0	58.2	20.3	20.3	57.4	24.0	23.9
LnGrp LOS	F	D	D	E	D	B	E	C	C	E	C	C
Approach Vol, veh/h	846		374			810			1015			
Approach Delay, s/veh	72.2		45.4			26.2			27.4			
Approach LOS	E		D			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.9	61.7	12.0	29.4	14.3	60.3	23.1	18.3				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	15.8	* 35	11.1	35.6	15.8	34.2	17.9	* 29				
Max Q Clear Time (g_c+I), s	10.8	16.1	8.0	20.2	10.1	22.8	19.9	8.0				
Green Ext Time (p_c), s	0.0	1.5	0.0	1.2	0.0	1.8	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	224	95	131	163	59	129	120	167	48	104	63
Future Volume (veh/h)	45	224	95	131	163	59	129	120	167	48	104	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	238	101	139	173	63	137	128	178	51	111	67
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	1226	654	212	695	545	170	1098	568	66	890	368
Arrive On Green	0.03	0.35	0.35	0.06	0.37	0.37	0.10	0.31	0.31	0.04	0.25	0.25
Sat Flow, veh/h	1781	3554	1457	3456	1870	1466	1781	3554	1525	1781	3554	1471
Grp Volume(v), veh/h	48	238	101	139	173	63	137	128	178	51	111	67
Grp Sat Flow(s),veh/h/ln	1781	1777	1457	1728	1870	1466	1781	1777	1525	1781	1777	1471
Q Serve(g_s), s	2.5	4.4	3.9	3.7	6.1	2.7	7.1	2.4	7.9	2.7	2.3	3.4
Cycle Q Clear(g_c), s	2.5	4.4	3.9	3.7	6.1	2.7	7.1	2.4	7.9	2.7	2.3	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	62	1226	654	212	695	545	170	1098	568	66	890	368
V/C Ratio(X)	0.78	0.19	0.15	0.66	0.25	0.12	0.80	0.12	0.31	0.77	0.12	0.18
Avail Cap(c_a), veh/h	566	1504	768	1097	792	621	566	1504	743	566	1504	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	21.7	15.9	43.4	20.6	19.5	41.9	23.4	21.2	45.1	27.4	27.8
Incr Delay (d2), s/veh	7.6	0.1	0.1	1.3	0.1	0.1	3.4	0.0	0.3	7.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.8	1.3	1.6	2.6	0.9	3.3	1.0	2.8	1.3	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	21.8	16.0	44.7	20.7	19.5	45.2	23.4	21.5	52.2	27.4	27.9
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		387			375			443			229	
Approach Delay, s/veh		24.1			29.4			29.4			33.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.2	38.5	14.4	30.4	8.7	41.0	8.9	35.9				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	5.7	6.4	9.1	5.4	4.5	8.1	4.7	9.9				
Green Ext Time (p_c), s	0.2	2.4	0.2	0.6	0.0	0.8	0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	4	0	11	28	1	45	20	329	29	48	275	8
Future Volume (veh/h)	4	0	11	28	1	45	20	329	29	48	275	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	0	12	31	1	49	22	362	32	53	302	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	49	311	548	15	487	39	1390	120	81	1604	47
Arrive On Green	0.27	0.00	0.27	0.27	0.27	0.27	0.02	0.29	0.29	0.05	0.32	0.32
Sat Flow, veh/h	201	183	1151	1328	55	1536	1781	4766	413	1781	5090	151
Grp Volume(v), veh/h	16	0	0	32	0	49	22	257	137	53	201	110
Grp Sat Flow(s), veh/h/ln	1535	0	0	1382	0	1536	1781	1702	1775	1781	1702	1837
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.8	0.5	2.2	2.2	1.1	1.6	1.6
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.6	0.0	0.8	0.5	2.2	2.2	1.1	1.6	1.6
Prop In Lane	0.25		0.75	0.97		1.00	1.00		0.23	1.00		0.08
Lane Grp Cap(c), veh/h	535	0	0	563	0	487	39	993	518	81	1073	579
V/C Ratio(X)	0.03	0.00	0.00	0.06	0.00	0.10	0.57	0.26	0.27	0.66	0.19	0.19
Avail Cap(c_a), veh/h	1713	0	0	1659	0	1714	1429	5460	2847	1429	5460	2946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	0.0	10.2	0.0	9.1	18.1	10.2	10.2	17.6	9.3	9.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.2	0.4	3.4	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.2	0.0	0.2	0.2	0.6	0.7	0.5	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.1	0.0	0.0	10.2	0.0	9.1	22.8	10.3	10.5	20.9	9.4	9.5
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	A
Approach Vol, veh/h	16			81			416			364		
Approach Delay, s/veh	10.1			9.5			11.1			11.1		
Approach LOS	B			A			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.3			15.0	5.2	17.2		15.0				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.1	4.2		2.3	2.5	3.6		2.8				
Green Ext Time (p_c), s	0.1	3.8		0.0	0.0	2.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay 10.9

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
3: Pacific Hwy & Enterprise St/SPAWAR Dwy

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	14	27	33	23	15	109	575	44	27	461	87
Future Volume (veh/h)	12	14	27	33	23	15	109	575	44	27	461	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.90	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	13	15	29	36	25	16	118	625	48	29	501	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	604	464	47	579	442	155	1315	556	41	935	176
Arrive On Green	0.04	0.32	0.32	0.03	0.31	0.31	0.09	0.37	0.37	0.02	0.32	0.32
Sat Flow, veh/h	1781	1870	1435	1781	1870	1428	1781	3554	1503	1781	2953	556
Grp Volume(v), veh/h	13	15	29	36	25	16	118	625	48	29	300	296
Grp Sat Flow(s),veh/h/ln	1781	1870	1435	1781	1870	1428	1781	1777	1503	1781	1777	1732
Q Serve(g_s), s	0.6	0.5	1.3	1.8	0.8	0.7	5.9	12.2	1.9	1.5	12.6	12.8
Cycle Q Clear(g_c), s	0.6	0.5	1.3	1.8	0.8	0.7	5.9	12.2	1.9	1.5	12.6	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	71	604	464	47	579	442	155	1315	556	41	563	549
V/C Ratio(X)	0.18	0.02	0.06	0.77	0.04	0.04	0.76	0.48	0.09	0.71	0.53	0.54
Avail Cap(c_a), veh/h	589	618	474	589	618	472	589	2349	993	589	1174	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	21.0	21.2	43.9	21.9	21.9	40.5	21.9	18.6	44.1	25.5	25.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	9.4	0.0	0.0	10.3	0.3	0.1	8.3	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 BackOfQ(50%),veh/ln	0.3	0.2	0.4	0.9	0.4	0.2	3.0	5.0	0.7	0.7	5.5	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	21.0	21.3	53.3	21.9	21.9	50.8	22.2	18.7	52.3	27.7	27.8
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h	57			77			791			625		
Approach Delay, s/veh	26.1			36.6			26.2			28.9		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	42.3	6.8	34.2	12.3	37.5	8.0	33.0				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	13.5	14.2	3.8	3.3	7.9	14.8	2.6	2.8				
Green Ext Time (p_c), s	0.0	6.6	0.0	0.1	0.5	10.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	262	16	154	118	0	0	0	0	207	19	33
Future Volume (veh/h)	0	262	16	154	118	0	0	0	0	207	19	33
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	276	17	162	124	0				232	0	35
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	277	553	243	336	641	0				921	0	651
Arrive On Green	0.00	0.16	0.16	0.19	0.19	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1781	3554	1560	1781	3572	0				3563	0	1562
Grp Volume(v), veh/h	0	276	17	162	124	0				232	0	35
Grp Sat Flow(s), veh/h/ln	1781	1777	1560	1781	1702	0				1781	0	1562
Q Serve(g_s), s	0.0	2.6	0.3	3.0	1.1	0.0				1.9	0.0	0.5
Cycle Q Clear(g_c), s	0.0	2.6	0.3	3.0	1.1	0.0				1.9	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	277	553	243	336	641	0				921	0	651
V/C Ratio(X)	0.00	0.50	0.07	0.48	0.19	0.00				0.25	0.00	0.05
Avail Cap(c_a), veh/h	2929	5844	2565	2929	5598	0				3417	0	1745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.1	13.1	13.2	12.5	0.0				10.7	0.0	6.4
Incr Delay (d2), s/veh	0.0	0.3	0.0	1.2	0.2	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 BackOfQ(50%), veh/ln	0.0	0.8	0.1	0.9	0.3	0.0				0.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.4	13.2	14.4	12.6	0.0				10.8	0.0	6.4
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	293			286			267					
Approach Delay, s/veh	14.3			13.7			10.2					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.7			15.6			11.2					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.6			3.9			5.0					
Green Ext Time (p_c), s	1.1			0.5			1.9					

Intersection Summary

HCM 6th Ctrl Delay 12.8

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	387	0	1	227	246	30	11	165	21	0	198
Future Volume (veh/h)	81	387	0	1	227	246	30	11	165	21	0	198
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.99		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	421	0	1	247	267	33	12	179	23	0	215
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	1492	0	55	534	406	302	17	248	29	0	268
Arrive On Green	0.07	0.42	0.00	0.29	0.29	0.29	0.17	0.17	0.17	0.19	0.00	0.19
Sat Flow, veh/h	1781	3647	0	1	1868	1422	1781	98	1463	153	0	1435
Grp Volume(v), veh/h	88	421	0	248	0	267	33	0	191	238	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1869	0	1422	1781	0	1561	1588	0	0
Q Serve(g_s), s	3.2	5.2	0.0	0.0	0.0	10.9	1.0	0.0	7.7	9.5	0.0	0.0
Cycle Q Clear(g_c), s	3.2	5.2	0.0	7.2	0.0	10.9	1.0	0.0	7.7	9.5	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.94	0.10		0.90
Lane Grp Cap(c), veh/h	118	1492	0	589	0	406	302	0	265	297	0	0
V/C Ratio(X)	0.75	0.28	0.00	0.42	0.00	0.66	0.11	0.00	0.72	0.80	0.00	0.00
Avail Cap(c_a), veh/h	807	3221	0	1745	0	1289	1076	0	943	959	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.4	12.6	0.0	19.5	0.0	20.8	23.3	0.0	26.0	25.7	0.0	0.0
Incr Delay (d2), s/veh	10.7	0.0	0.0	0.6	0.0	2.2	0.1	0.0	1.4	1.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.7	0.0	2.8	0.0	3.4	0.4	0.0	2.8	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	12.7	0.0	20.1	0.0	23.0	23.3	0.0	27.4	27.7	0.0	0.0
LnGrp LOS	D	B	A	C	A	C	C	A	C	C	A	A
Approach Vol, veh/h	509				515		224				238	
Approach Delay, s/veh	17.6				21.6		26.8				27.7	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	32.2		16.4		8.9	23.3	17.6					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	7.2		11.5		5.2	12.9	9.7					
Green Ext Time (p_c), s	1.7		1.1		0.3	4.0	0.9					

Intersection Summary

HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	473	103	267	321	0	0	0	0	324	177	161
Future Volume (veh/h)	0	473	103	267	321	0	0	0	0	324	177	161
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	498	108	281	338	0				341	186	169
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1990	871	361	2548	0				593	311	255
Arrive On Green	0.00	0.56	0.56	0.21	1.00	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	3647	1555	3456	3647	0				3563	1870	1533
Grp Volume(v), veh/h	0	498	108	281	338	0				341	186	169
Grp Sat Flow(s),veh/h/ln	0	1777	1555	1728	1777	0				1781	1870	1533
Q Serve(g_s), s	0.0	6.0	2.8	6.5	0.0	0.0				7.4	7.7	8.7
Cycle Q Clear(g_c), s	0.0	6.0	2.8	6.5	0.0	0.0				7.4	7.7	8.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1990	871	361	2548	0				593	311	255
V/C Ratio(X)	0.00	0.25	0.12	0.78	0.13	0.00				0.58	0.60	0.66
Avail Cap(c_a), veh/h	0	1990	871	703	2548	0				1361	715	586
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.5	8.7	32.3	0.0	0.0				32.3	32.4	32.8
Incr Delay (d2), s/veh	0.0	0.3	0.3	1.3	0.1	0.0				0.3	0.7	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 BackOfQ(50%),veh/ln	0.0	2.0	0.8	2.4	0.0	0.0				3.2	3.5	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.8	9.0	33.6	0.1	0.0				32.6	33.1	33.9
LnGrp LOS	A	A	A	C	A	A				C	C	C
Approach Vol, veh/h		606			619						696	
Approach Delay, s/veh		9.6			15.3						33.0	
Approach LOS		A			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.2	51.9		18.9		65.1						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.5	8.0		10.7		2.0						
Green Ext Time (p_c), s	0.3	3.2		1.6		2.4						

Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	324	475	0	0	475	422	111	219	17	0	0	0
Future Volume (veh/h)	324	475	0	0	475	422	111	219	17	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	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			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	352	516	0	0	516	459	121	238	18			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1282	2714	0	0	1189	517	190	413	31			
Arrive On Green	0.74	1.00	0.00	0.00	0.33	0.33	0.12	0.12	0.12			
Sat Flow, veh/h	3456	3647	0	0	3647	1547	1587	3461	261			
Grp Volume(v), veh/h	352	516	0	0	516	459	137	115	125			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1547	1791	1702	1815			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	9.5	23.6	6.1	5.4	5.5			
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.0	9.5	23.6	6.1	5.4	5.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.89		0.14			
Lane Grp Cap(c), veh/h	1282	2714	0	0	1189	517	214	203	217			
V/C Ratio(X)	0.27	0.19	0.00	0.00	0.43	0.89	0.64	0.57	0.58			
Avail Cap(c_a), veh/h	1282	2714	0	0	1189	517	599	569	607			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.2	0.0	0.0	0.0	21.8	26.4	35.3	34.9	35.0			
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	1.2	19.7	1.2	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			
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.0	0.0	3.8	10.6	2.7	2.2	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.3	0.1	0.0	0.0	22.9	46.1	36.4	35.9	35.9			
LnGrp LOS	A	A	A	A	C	D	D	D	D			
Approach Vol, veh/h	868			975			377					
Approach Delay, s/veh	3.0			33.8			36.1					
Approach LOS	A			C			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	69.1			36.1			33.0			14.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			4.8			25.6			8.1		
Green Ext Time (p_c), s	4.2			0.8			1.2			1.4		

Intersection Summary

HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	21	55	24	1183	13	0	0	0
Future Volume (veh/h)	0	0	0	0	21	55	24	1183	13	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	23	60	26	1300	14			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	78	119	3289	35			
Arrive On Green				0.00	0.06	0.06	0.66	0.66	0.66			
Sat Flow, veh/h				0	459	1196	37	5008	53			
Grp Volume(v), veh/h				0	0	83	490	406	444			
Grp Sat Flow(s),veh/h/ln				0	0	1655	1859	1549	1691			
Q Serve(g_s), s				0.0	0.0	2.0	0.0	4.9	4.9			
Cycle Q Clear(g_c), s				0.0	0.0	2.0	4.9	4.9	4.9			
Prop In Lane				0.00		0.72	0.05		0.03			
Lane Grp Cap(c), veh/h				0	0	107	1316	1017	1110			
V/C Ratio(X)				0.00	0.00	0.77	0.37	0.40	0.40			
Avail Cap(c_a), veh/h				0	0	1660	2875	2330	2544			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	18.4	3.2	3.2	3.2			
Incr Delay (d2), s/veh				0.0	0.0	4.4	0.3	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.8	0.7	0.6	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	22.8	3.4	3.6	3.5			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					83			1340				
Approach Delay, s/veh					22.8			3.5				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.8						8.1				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		6.9						4.0				
Green Ext Time (p_c), s		19.3						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.6									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	203	88	333	509	76	206	316	111	50	303	94
Future Volume (veh/h)	84	203	88	333	509	76	206	316	111	50	303	94
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		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	218	95	358	547	82	222	340	119	54	326	101
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	420	352	397	607	91	261	1122	368	70	740	215
Arrive On Green	0.07	0.22	0.22	0.22	0.38	0.38	0.15	0.30	0.30	0.04	0.19	0.19
Sat Flow, veh/h	1781	1870	1570	1781	1588	238	1781	3764	1235	1781	3881	1127
Grp Volume(v), veh/h	90	218	95	358	0	629	222	305	154	54	283	144
Grp Sat Flow(s),veh/h/ln	1781	1870	1570	1781	0	1826	1781	1702	1595	1781	1702	1604
Q Serve(g_s), s	4.4	9.0	4.4	17.3	0.0	28.7	10.7	6.1	6.6	2.7	6.5	7.0
Cycle Q Clear(g_c), s	4.4	9.0	4.4	17.3	0.0	28.7	10.7	6.1	6.6	2.7	6.5	7.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.77	1.00		0.70
Lane Grp Cap(c), veh/h	117	420	352	397	0	698	261	1015	475	70	649	306
V/C Ratio(X)	0.77	0.52	0.27	0.90	0.00	0.90	0.85	0.30	0.32	0.78	0.44	0.47
Avail Cap(c_a), veh/h	605	847	711	605	0	827	605	2313	1084	605	2313	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	40.6	30.1	28.3	33.3	0.0	25.7	36.7	23.9	24.1	42.0	31.5	31.8
Incr Delay (d2), s/veh	4.0	0.4	0.2	8.6	0.0	11.7	3.0	0.3	0.7	6.7	0.8	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 BackOfQ(50%),veh/ln	2.1	4.1	1.7	8.3	0.0	14.2	4.7	2.4	2.5	1.3	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	30.4	28.4	41.9	0.0	37.4	39.7	24.2	24.8	48.7	32.4	33.8
LnGrp LOS	D	C	C	D	A	D	D	C	C	D	C	C
Approach Vol, veh/h	403			987			681			481		
Approach Delay, s/veh	33.1			39.0			29.4			34.6		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	31.6	24.1	24.7	17.3	22.1	10.2	38.6				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I4.7), s	14.7	8.6	19.3	11.0	12.7	9.0	6.4	30.7				
Green Ext Time (p_c), s	0.1	5.9	0.4	1.0	0.3	5.3	0.1	3.1				

Intersection Summary

HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	153	216	77	261	0	0	0	0	81	1186	653
Future Volume (veh/h)	0	153	216	77	261	0	0	0	0	81	1186	653
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	156	220	79	266	0				83	1210	666
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	374	317	143	465	0				1145	2188	1004
Arrive On Green	0.00	0.20	0.20	0.20	0.20	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	1870	1585	395	2415	0				1781	3404	1562
Grp Volume(v), veh/h	0	156	220	170	175	0				83	1210	666
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1107	1617	0				1781	1702	1562
Q Serve(g_s), s	0.0	6.0	10.7	6.9	8.0	0.0				1.4	16.3	21.9
Cycle Q Clear(g_c), s	0.0	6.0	10.7	12.9	8.0	0.0				1.4	16.3	21.9
Prop In Lane	0.00		1.00	0.46		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	374	317	285	323	0				1145	2188	1004
V/C Ratio(X)	0.00	0.42	0.69	0.60	0.54	0.00				0.07	0.55	0.66
Avail Cap(c_a), veh/h	0	679	576	504	587	0				1294	2473	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.9	30.7	32.0	29.7	0.0				5.5	8.2	9.2
Incr Delay (d2), s/veh	0.0	0.3	1.0	1.5	1.1	0.0				0.0	0.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	4.1	3.3	3.2	0.0				0.5	5.1	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.1	31.7	33.4	30.7	0.0				5.6	8.6	10.9
LnGrp LOS	A	C	C	C	C	A				A	A	B
Approach Vol, veh/h		376			345						1959	
Approach Delay, s/veh		30.7			32.1						9.2	
Approach LOS		C			C						A	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				23.2		59.4		23.2				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				12.7		23.9		14.9				
Green Ext Time (p_c), s				0.9		29.2		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	159	17	53	0	28	15	318	1058	26	0	0	0
Future Volume (veh/h)	159	17	53	0	28	15	318	1058	26	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	185	20	62	0	33	17	370	1230	30			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	420	32	1181	0	268	138	919	1827	45			
Arrive On Green	0.23	0.23	0.23	0.00	0.23	0.23	0.52	0.52	0.52			
Sat Flow, veh/h	1130	139	1575	0	1162	598	1781	3542	86			
Grp Volume(v), veh/h	205	0	62	0	0	50	370	617	643			
Grp Sat Flow(s), veh/h/ln	1269	0	1575	0	0	1760	1781	1777	1852			
Q Serve(g_s), s	5.8	0.0	0.0	0.0	0.0	1.0	5.5	11.1	11.1			
Cycle Q Clear(g_c), s	6.7	0.0	0.0	0.0	0.0	1.0	5.5	11.1	11.1			
Prop In Lane	0.90		1.00	0.00		0.34	1.00		0.05			
Lane Grp Cap(c), veh/h	452	0	1181	0	0	406	919	917	955			
V/C Ratio(X)	0.45	0.00	0.05	0.00	0.00	0.12	0.40	0.67	0.67			
Avail Cap(c_a), veh/h	1101	0	1917	0	0	1229	1223	1220	1271			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.7	0.0	1.4	0.0	0.0	13.1	6.4	7.7	7.7			
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.0	0.1	0.3	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			
%ile BackOfQ(50%), veh/ln	1.7	0.0	0.7	0.0	0.0	0.3	1.4	3.0	3.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.4	0.0	1.5	0.0	0.0	13.1	6.6	8.6	8.6			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		267			50			1630				
Approach Delay, s/veh		12.9			13.1			8.2				
Approach LOS		B			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		26.7		16.3				16.3				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+I1), s		13.1		8.7				3.0				
Green Ext Time (p_c), s		9.1		1.4				0.1				
Intersection Summary												
HCM 6th Ctrl Delay			8.9									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	37	52	29	4	19	41	588	26	21	699	22
Future Volume (veh/h)	29	37	52	29	4	19	41	588	26	21	699	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	39	55	31	4	20	43	619	27	22	736	23
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	483	179	252	420	69	344	64	2149	654	73	2063	64
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.04	0.42	0.42	0.02	0.41	0.41
Sat Flow, veh/h	1378	699	986	1295	269	1347	1781	5106	1553	3456	5081	158
Grp Volume(v), veh/h	31	0	94	31	0	24	43	619	27	22	492	267
Grp Sat Flow(s),veh/h/ln	1378	0	1685	1295	0	1617	1781	1702	1553	1728	1702	1835
Q Serve(g_s), s	0.9	0.0	2.2	1.0	0.0	0.6	1.2	3.9	0.5	0.3	4.9	5.0
Cycle Q Clear(g_c), s	1.4	0.0	2.2	3.1	0.0	0.6	1.2	3.9	0.5	0.3	4.9	5.0
Prop In Lane	1.00		0.59	1.00		0.83	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	483	0	430	420	0	413	64	2149	654	73	1382	745
V/C Ratio(X)	0.06	0.00	0.22	0.07	0.00	0.06	0.67	0.29	0.04	0.30	0.36	0.36
Avail Cap(c_a), veh/h	1249	0	1368	1140	0	1313	1085	6219	1891	2104	4146	2235
HCM Platoon Ratio	1.00	1.00	1.00	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	14.4	0.0	14.5	15.7	0.0	13.9	23.5	9.4	8.4	23.8	10.2	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0	4.4	0.1	0.0	0.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	0.3	0.0	0.2	0.5	1.2	0.1	0.1	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	14.6	15.7	0.0	13.9	27.8	9.5	8.5	24.6	10.3	10.5
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	B	B
Approach Vol, veh/h	125			55			689			781		
Approach Delay, s/veh	14.5			14.9			10.6			10.8		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	5.4	26.4	17.4		6.2	25.7	17.4					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I2,3), s	12.3	5.9	4.2		3.2	7.0	5.1					
Green Ext Time (p_c), s	0.0	8.7	0.4		0.0	5.6	0.1					

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑			↑		
Traffic Vol, veh/h	0	3054	13	0	1494	0	0	0	1	0	0	0
Future Vol, veh/h	0	3054	13	0	1494	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	3148	13	0	1540	0	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1581	-	-	770
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	84	0	0	295
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	84	-	-	295
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	48.4	0
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1
Capacity (veh/h)	84	-	-	-	-
HCM Lane V/C Ratio	0.012	-	-	-	-
HCM Control Delay (s)	48.4	-	-	-	0
HCM Lane LOS	E	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1126	1916	2061	57	45	60
Future Volume (veh/h)	1126	1916	2061	57	45	60
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1185	2017	2169	0	47	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	814	4264	2903		99	88
Arrive On Green	0.24	0.86	0.58	0.00	0.06	0.06
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1185	2017	2169	0	47	63
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	27.8	11.6	38.0	0.0	3.0	4.6
Cycle Q Clear(g_c), s	27.8	11.6	38.0	0.0	3.0	4.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	814	4264	2903		99	88
V/C Ratio(X)	1.46	0.47	0.75		0.47	0.71
Avail Cap(c_a), veh/h	814	4264	2903		479	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.50	0.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	2.1	18.2	0.0	54.0	54.8
Incr Delay (d2), s/veh	211.8	0.4	0.9	0.0	1.3	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.4	1.5	13.2	0.0	1.4	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	256.9	2.5	19.1	0.0	55.3	58.8
LnGrp LOS	F	A	B		E	E
Approach Vol, veh/h		3202	2169	A	110	
Approach Delay, s/veh		96.6	19.1		57.3	
Approach LOS		F	B		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.2		11.8	32.2	74.0
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		75.8		31.7	27.8	* 44
Max Q Clear Time (g_c+I1), s		13.6		6.6	29.8	40.0
Green Ext Time (p_c), s		55.8		0.1	0.0	3.6
Intersection Summary						
HCM 6th Ctrl Delay			65.2			
HCM 6th LOS			E			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	850	41	44	931	85	73	278	62	84	164	534
Future Volume (veh/h)	268	850	41	44	931	85	73	278	62	84	164	534
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.94	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	273	867	42	45	950	87	74	284	63	86	167	545
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	299	1616	78	268	1500	137	94	732	153	107	934	528
Arrive On Green	0.17	0.47	0.47	0.05	0.15	0.15	0.05	0.18	0.18	0.06	0.18	0.18
Sat Flow, veh/h	1781	3449	167	1781	3286	301	1781	4175	873	1781	5106	1430
Grp Volume(v), veh/h	273	447	462	45	514	523	74	228	119	86	167	545
Grp Sat Flow(s),veh/h/ln	1781	1777	1840	1781	1777	1810	1781	1702	1644	1781	1702	1430
Q Serve(g_s), s	21.1	25.0	25.0	3.4	38.0	38.0	5.7	8.3	9.0	6.7	3.9	25.6
Cycle Q Clear(g_c), s	21.1	25.0	25.0	3.4	38.0	38.0	5.7	8.3	9.0	6.7	3.9	25.6
Prop In Lane	1.00		0.09	1.00		0.17	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	299	833	862	268	811	826	94	597	288	107	934	528
V/C Ratio(X)	0.91	0.54	0.54	0.17	0.63	0.63	0.79	0.38	0.41	0.80	0.18	1.03
Avail Cap(c_a), veh/h	382	833	862	268	811	826	244	625	302	244	934	528
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	0.99	0.99	0.99	0.97	0.97	0.97
Uniform Delay (d), s/veh	57.2	26.4	26.4	58.1	48.4	48.5	65.6	51.0	51.3	65.0	48.3	46.1
Incr Delay (d2), s/veh	22.1	2.5	2.4	1.2	3.3	3.2	5.4	0.5	1.0	5.0	0.1	47.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	10.9	11.3	1.6	18.9	19.2	2.7	3.6	3.8	3.2	1.7	24.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.4	28.9	28.8	59.3	51.8	51.7	71.0	51.5	52.4	70.0	48.5	93.3
LnGrp LOS	E	C	C	E	D	D	E	D	D	E	D	F
Approach Vol, veh/h	1182			1082			421			798		
Approach Delay, s/veh	40.5			52.0			55.2			81.4		
Approach LOS	D			D			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	29.5	26.8	70.8	11.8	30.6	27.9	69.7					
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+I18.7	11.0	5.4	27.0	7.7	27.6	23.1	40.0					
Green Ext Time (p_c), s	0.1	2.0	0.0	9.2	0.1	0.0	0.4	2.7				

Intersection Summary

HCM 6th Ctrl Delay	55.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑					↵↑↑	↑↑	↵
Traffic Volume (veh/h)	0	907	54	41	175	0	0	0	0	182	155	863
Future Volume (veh/h)	0	907	54	41	175	0	0	0	0	182	155	863
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	986	59	45	190	0				198	168	938
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1695	101	70	2021	0				616	1293	537
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3499	204	1781	3647	0				1781	3741	1553
Grp Volume(v), veh/h	0	514	531	45	190	0				198	168	938
Grp Sat Flow(s),veh/h/ln	0	1777	1833	1781	1777	0				1781	1870	1553
Q Serve(g_s), s	0.0	37.4	37.5	3.5	3.4	0.0				11.5	4.3	48.4
Cycle Q Clear(g_c), s	0.0	37.4	37.5	3.5	3.4	0.0				11.5	4.3	48.4
Prop In Lane	0.00		0.11	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	884	912	70	2021	0				616	1293	537
V/C Ratio(X)	0.00	0.58	0.58	0.64	0.09	0.00				0.32	0.13	1.75
Avail Cap(c_a), veh/h	0	884	912	313	2021	0				616	1293	537
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.87	0.87	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	45.0	45.0	66.3	13.8	0.0				33.7	31.4	45.8
Incr Delay (d2), s/veh	0.0	2.5	2.4	3.1	0.1	0.0				1.4	0.2	343.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.5	19.1	1.6	1.4	0.0				5.3	2.0	70.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	47.5	47.4	69.4	13.8	0.0				35.1	31.6	389.5
LnGrp LOS	A	D	D	E	B	A				D	C	F
Approach Vol, veh/h		1045			235						1304	
Approach Delay, s/veh		47.5			24.5						289.6	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.9	76.3		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.5	39.5		50.4		5.4						
Green Ext Time (p_c), s	0.0	1.8		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	167.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↰			
Traffic Volume (veh/h)	800	297	0	0	163	108	38	69	47	0	0	0
Future Volume (veh/h)	800	297	0	0	163	108	38	69	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	860	319	0	0	175	116	41	74	51			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1537	1521	0	0	641	401	78	153	97			
Arrive On Green	0.44	0.81	0.00	0.00	0.31	0.31	0.06	0.06	0.06			
Sat Flow, veh/h	3456	1870	0	0	2182	1306	1209	2378	1511			
Grp Volume(v), veh/h	860	319	0	0	147	144	61	54	51			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1617	1810	1777	1511			
Q Serve(g_s), s	14.7	3.1	0.0	0.0	5.0	5.4	2.6	2.3	2.6			
Cycle Q Clear(g_c), s	14.7	3.1	0.0	0.0	5.0	5.4	2.6	2.3	2.6			
Prop In Lane	1.00		0.00	0.00		0.81	0.67		1.00			
Lane Grp Cap(c), veh/h	1537	1521	0	0	546	497	116	114	97			
V/C Ratio(X)	0.56	0.21	0.00	0.00	0.27	0.29	0.53	0.47	0.52			
Avail Cap(c_a), veh/h	1537	1521	0	0	580	528	387	380	323			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.78	0.78	0.00	0.00	1.00	1.00	0.98	0.98	0.98			
Uniform Delay (d), s/veh	16.4	1.7	0.0	0.0	20.9	21.1	36.2	36.1	36.2			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	0.1	0.1	1.3	1.1	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.2	0.4	0.0	0.0	2.0	1.9	1.2	1.0	1.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	1.9	0.0	0.0	21.0	21.2	37.6	37.2	37.8			
LnGrp LOS	B	A	A	A	C	C	D	D	D			
Approach Vol, veh/h	1179				291				166			
Approach Delay, s/veh	12.8				21.1				37.5			
Approach LOS	B				C				D			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	70.0				40.5		29.5		10.0			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	53.1				22.1		* 26		17.1			
Max Q Clear Time (g_c+I1), s	5.1				16.7		7.4		4.6			
Green Ext Time (p_c), s	1.1				1.7		0.9		0.4			

Intersection Summary

HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	150	1660	450	0	0	1928
Future Volume (veh/h)	150	1660	450	0	0	1928
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	153	0	459	0	0	1967
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	184		2044	0	637	5074
Arrive On Green	0.10	0.00	0.41	0.00	0.00	0.81
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	153	0	459	0	0	1967
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	9.3	0.0	6.6	0.0	0.0	9.6
Cycle Q Clear(g_c), s	9.3	0.0	6.6	0.0	0.0	9.6
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	184		2044	0	637	5074
V/C Ratio(X)	0.83		0.22	0.00	0.00	0.39
Avail Cap(c_a), veh/h	487		2044	0	730	5074
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.00	0.93	0.00	0.00	0.87
Uniform Delay (d), s/veh	48.4	0.0	21.1	0.0	0.0	3.0
Incr Delay (d2), s/veh	2.7	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	2.4	0.0	0.0	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.1	0.0	21.2	0.0	0.0	3.2
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	153	A	459			1967
Approach Delay, s/veh	51.1		21.2			3.2
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	43.8	50.0			93.8	16.2
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.1	20.6			45.1	30.1
Max Q Clear Time (g_c+I), s	10.0	8.6			11.6	11.3
Green Ext Time (p_c), s	0.0	3.0			22.9	0.2

Intersection Summary

HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑↑↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	171	1678	129	128	287	0	0	212	44
Future Volume (veh/h)	0	0	0	171	1678	129	128	287	0	0	212	44
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				176	1730	133	132	296	0	0	219	45
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				249	2612	206	155	1416	0	0	557	107
Arrive On Green				0.19	0.19	0.19	0.17	0.55	0.00	0.00	0.13	0.13
Sat Flow, veh/h				435	4553	359	1781	5274	0	0	4395	808
Grp Volume(v), veh/h				748	626	665	132	296	0	0	173	91
Grp Sat Flow(s),veh/h/ln				1849	1702	1796	1781	1702	0	0	1702	1631
Q Serve(g_s), s				41.7	37.3	37.6	7.9	3.2	0.0	0.0	5.1	5.6
Cycle Q Clear(g_c), s				41.7	37.3	37.6	7.9	3.2	0.0	0.0	5.1	5.6
Prop In Lane				0.24		0.20	1.00		0.00	0.00		0.50
Lane Grp Cap(c), veh/h				1060	976	1030	155	1416	0	0	449	215
V/C Ratio(X)				0.71	0.64	0.65	0.85	0.21	0.00	0.00	0.39	0.42
Avail Cap(c_a), veh/h				1060	976	1030	155	1629	0	0	591	283
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.73	0.73	0.73	0.68	0.68	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh				35.9	34.1	34.2	44.7	18.4	0.0	0.0	43.7	43.9
Incr Delay (d2), s/veh				2.9	2.4	2.3	23.7	0.1	0.0	0.0	0.4	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.4	17.6	18.7	4.2	1.2	0.0	0.0	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.8	36.5	36.5	68.4	18.5	0.0	0.0	44.0	44.8
LnGrp LOS				D	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2039			428			264	
Approach Delay, s/veh					37.4			33.9			44.3	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.5	20.9		69.0	36.4				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+I1), s				9.9	7.6		43.7	5.2				
Green Ext Time (p_c), s				0.0	0.9		11.8	2.2				
Intersection Summary												
HCM 6th Ctrl Delay					37.5							
HCM 6th LOS					D							
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	195	1936	0	0	0	0	0	144	55
Future Volume (veh/h)	0	0	0	195	1936	0	0	0	0	0	144	55
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				203	2017	0				0	150	57
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				320	3408	0				0	735	247
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				451	4969	0				0	3877	1247
Grp Volume(v), veh/h				831	1389	0				0	136	71
Grp Sat Flow(s),veh/h/ln				1848	1702	0				0	1702	1552
Q Serve(g_s), s				44.5	39.7	0.0				0.0	3.7	4.2
Cycle Q Clear(g_c), s				44.5	39.7	0.0				0.0	3.7	4.2
Prop In Lane				0.24		0.00				0.00		0.80
Lane Grp Cap(c), veh/h				1312	2417	0				0	675	308
V/C Ratio(X)				0.63	0.57	0.00				0.00	0.20	0.23
Avail Cap(c_a), veh/h				1312	2417	0				0	675	308
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				29.2	27.4	0.0				0.0	36.8	37.1
Incr Delay (d2), s/veh				2.3	1.0	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
%ile BackOfQ(50%),veh/ln				22.8	18.3	0.0				0.0	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.6	28.4	0.0				0.0	37.5	38.8
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2220						207	
Approach Delay, s/veh					29.6						37.9	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.7		83.3						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.8		78.1						
Max Q Clear Time (g_c+I1), s				6.2		46.5						
Green Ext Time (p_c), s				0.3		3.9						
Intersection Summary												
HCM 6th Ctrl Delay				30.3								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2040	121	81	92	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2040	121	81	92	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2103	125	84	95	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3451	204	323	407	0			
Arrive On Green				0.00	0.23	0.23	0.20	0.20	0.00			
Sat Flow, veh/h				0	5092	291	1578	2084	0			
Grp Volume(v), veh/h				0	1450	778	95	84	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1811	1791	1777	0			
Q Serve(g_s), s				0.0	41.9	42.3	4.9	4.3	0.0			
Cycle Q Clear(g_c), s				0.0	41.9	42.3	4.9	4.3	0.0			
Prop In Lane				0.00		0.16	0.88		0.00			
Lane Grp Cap(c), veh/h				0	2386	1269	366	363	0			
V/C Ratio(X)				0.00	0.61	0.61	0.26	0.23	0.00			
Avail Cap(c_a), veh/h				0	2386	1269	366	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	28.8	28.9	36.8	36.5	0.0			
Incr Delay (d2), s/veh				0.0	1.2	2.2	1.7	1.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	19.4	21.2	2.4	2.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	29.9	31.1	38.5	38.0	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2228			179				
Approach Delay, s/veh					30.3			38.3				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						44.3		6.9				
Green Ext Time (p_c), s						23.0		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											30.9	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	196	2125	0	0	0	0	0	138	39
Future Volume (veh/h)	0	0	0	196	2125	0	0	0	0	0	138	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				206	2237	0				0	145	41
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				291	3391	0				0	733	316
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				416	5006	0				0	3647	1533
Grp Volume(v), veh/h				916	1527	0				0	145	41
Grp Sat Flow(s),veh/h/ln				1850	1702	0				0	1777	1533
Q Serve(g_s), s				50.1	44.5	0.0				0.0	3.7	2.4
Cycle Q Clear(g_c), s				50.1	44.5	0.0				0.0	3.7	2.4
Prop In Lane				0.22		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1296	2386	0				0	733	316
V/C Ratio(X)				0.71	0.64	0.00				0.00	0.20	0.13
Avail Cap(c_a), veh/h				1296	2386	0				0	733	316
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				31.9	29.8	0.0				0.0	36.1	35.6
Incr Delay (d2), s/veh				3.3	1.3	0.0				0.0	0.6	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.9	20.6	0.0				0.0	1.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.2	31.1	0.0				0.0	36.7	36.4
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2443						186	
Approach Delay, s/veh					32.6						36.7	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				5.7		52.1						
Green Ext Time (p_c), s				0.9		20.3						
Intersection Summary												
HCM 6th Ctrl Delay											32.9	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2254	72	29	26	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2254	72	29	26	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2348	75	30	27	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3699	118	311	320	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5248	161	1754	1899	0			
Grp Volume(v), veh/h				0	1569	854	30	27	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1837	1783	1777	0			
Q Serve(g_s), s				0.0	25.6	26.0	1.6	1.4	0.0			
Cycle Q Clear(g_c), s				0.0	25.6	26.0	1.6	1.4	0.0			
Prop In Lane				0.00		0.09	0.98		0.00			
Lane Grp Cap(c), veh/h				0	2479	1338	316	315	0			
V/C Ratio(X)				0.00	0.63	0.64	0.10	0.08	0.00			
Avail Cap(c_a), veh/h				0	2479	1338	316	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	7.5	7.6	37.9	37.8	0.0			
Incr Delay (d2), s/veh				0.0	1.2	2.3	0.6	0.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	8.3	9.5	0.8	0.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	8.8	9.9	38.5	38.3	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					2423			57				
Approach Delay, s/veh					9.2			38.4				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						28.0		3.6				
Green Ext Time (p_c), s						35.0		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				9.9								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	109	479	2	89	0	0	0	11
Future Vol, veh/h	0	0	0	0	109	479	2	89	0	0	0	11
Conflicting Peds, #/hr	6	0	0	0	0	6	15	0	0	0	0	15
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	114	499	2	93	0	0	0	11
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	72	619	-	-	-	328
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	72	619	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	911	403	0	0	0	668
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	929	478	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	896	401	-	-	-	664
Mov Cap-2 Maneuver				-	-	-	896	401	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	913	475	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		16.7		10.5				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	401	-	-	664								
HCM Lane V/C Ratio	0.231	-	-	0.017								
HCM Control Delay (s)	16.7	-	-	10.5								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	0.9	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Existing Conditions with Project
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	437	116	1348	722	0
Future Volume (veh/h)	0	0	0	0	0	0	0	437	116	1348	722	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	460	122	1419	760	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	784	238	3795	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.16	0.16	0.76	0.95	0.00
Sat Flow, veh/h		0					0	5149	1511	5023	1826	0
Grp Volume(v), veh/h		0.0					0	460	122	1419	760	0
Grp Sat Flow(s),veh/h/ln							0	1662	1511	1674	1826	0
Q Serve(g_s), s							0.0	9.4	8.1	10.6	3.7	0.0
Cycle Q Clear(g_c), s							0.0	9.4	8.1	10.6	3.7	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	784	238	3795	1740	0
V/C Ratio(X)							0.00	0.59	0.51	0.37	0.44	0.00
Avail Cap(c_a), veh/h							0	1205	365	3795	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.91	0.91	0.00
Uniform Delay (d), s/veh							0.0	43.0	42.5	4.6	0.2	0.0
Incr Delay (d2), s/veh							0.0	1.8	4.4	0.1	0.7	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	3.9	3.2	2.6	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	44.9	46.9	4.6	0.9	0.0
LnGrp LOS							A	D	D	A	A	A
Approach Vol, veh/h								582			2179	
Approach Delay, s/veh								45.3			3.3	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	87.5	22.5					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	12.6	11.4					5.7					
Green Ext Time (p_c), s	6.4	5.5					7.6					
Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	48	1388	55	0	0	0	0	340	207	79	303	0
Future Volume (veh/h)	48	1388	55	0	0	0	0	340	207	79	303	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	49	1431	57				0	351	213	81	312	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	102	3174	960				0	618	275	111	1451	0
Arrive On Green	0.21	0.21	0.21				0.00	0.18	0.18	0.13	0.57	0.00
Sat Flow, veh/h	164	5102	1543				0	3572	1513	1781	5274	0
Grp Volume(v), veh/h	556	924	57				0	351	213	81	312	0
Grp Sat Flow(s),veh/h/ln	1862	1702	1543				0	1702	1513	1781	1702	0
Q Serve(g_s), s	28.9	26.1	3.3				0.0	10.3	14.7	4.8	3.3	0.0
Cycle Q Clear(g_c), s	28.9	26.1	3.3				0.0	10.3	14.7	4.8	3.3	0.0
Prop In Lane	0.09		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1159	2118	960				0	618	275	111	1451	0
V/C Ratio(X)	0.48	0.44	0.06				0.00	0.57	0.77	0.73	0.22	0.00
Avail Cap(c_a), veh/h	1159	2118	960				0	916	407	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.59	0.59	0.59				0.00	1.00	1.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	28.0	26.9	17.8				0.0	41.1	42.9	47.2	17.7	0.0
Incr Delay (d2), s/veh	0.8	0.4	0.1				0.0	0.9	5.9	2.9	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 BackOfQ(50%),veh/ln	4.7	12.0	1.1				0.0	4.4	5.9	2.1	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	27.3	17.9				0.0	42.0	48.8	50.2	17.8	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1537						564			393		
Approach Delay, s/veh	27.5						44.6			24.4		
Approach LOS	C						D			C		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	73.3			36.7			11.3		25.4			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	45.6			54.1			20.1		* 30			
Max Q Clear Time (g_c+I1), s	30.9			5.3			6.8		16.7			
Green Ext Time (p_c), s	11.0			1.7			0.1		3.2			
Intersection Summary												
HCM 6th Ctrl Delay			30.9									
HCM 6th LOS			C									
Notes												

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1618	52	0	0	0	0	0	0	115	229	0
Future Volume (veh/h)	0	1618	52	0	0	0	0	0	0	115	229	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1668	54							119	236	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2957	96							529	1175	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5243	164							1613	3749	0
Grp Volume(v), veh/h	0	1119	603							132	223	0
Grp Sat Flow(s),veh/h/ln	0	1702	1835							1790	1702	0
Q Serve(g_s), s	0.0	32.8	32.8							7.4	6.6	0.0
Cycle Q Clear(g_c), s	0.0	32.8	32.8							7.4	6.6	0.0
Prop In Lane	0.00		0.09							0.90		0.00
Lane Grp Cap(c), veh/h	0	1984	1069							587	1117	0
V/C Ratio(X)	0.00	0.56	0.56							0.22	0.20	0.00
Avail Cap(c_a), veh/h	0	1984	1069							587	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	31.8	31.8							36.3	35.9	0.0
Incr Delay (d2), s/veh	0.0	1.2	2.2							0.9	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.2	16.7							3.6	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.9	33.9							37.1	36.3	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1722									355	
Approach Delay, s/veh		33.3									36.6	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		69.0		41.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		64.1		36.1								
Max Q Clear Time (g_c+l1), s		34.8		9.4								
Green Ext Time (p_c), s		5.5		0.9								
Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	70	1670	0	0	0	0	0	110	164	0	0	0
Future Volume (veh/h)	70	1670	0	0	0	0	0	110	164	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.92			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	72	1722	0				0	113	169			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	114	2906	0				0	599	494			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	199	5234	0				0	1870	1465			
Grp Volume(v), veh/h	673	1121	0				0	113	169			
Grp Sat Flow(s), veh/h/ln	1860	1702	0				0	1777	1465			
Q Serve(g_s), s	36.6	32.9	0.0				0.0	5.0	9.5			
Cycle Q Clear(g_c), s	36.6	32.9	0.0				0.0	5.0	9.5			
Prop In Lane	0.11		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1067	1953	0				0	599	494			
V/C Ratio(X)	0.63	0.57	0.00				0.00	0.19	0.34			
Avail Cap(c_a), veh/h	1067	1953	0				0	599	494			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	33.9	32.4	0.0				0.0	25.8	27.3			
Incr Delay (d2), s/veh	2.8	1.2	0.0				0.0	0.7	1.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	15.3	0.0				0.0	2.2	3.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.7	33.6	0.0				0.0	26.5	29.2			
LnGrp LOS	D	C	A				A	C	C			
Approach Vol, veh/h		1794						282				
Approach Delay, s/veh		34.8						28.1				
Approach LOS		C						C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		68.0						42.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		63.1						37.1				
Max Q Clear Time (g_c+l1), s		38.6						11.5				
Green Ext Time (p_c), s		14.8						1.9				
Intersection Summary												
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1745	66	0	0	0	0	0	0	121	231	0
Future Volume (veh/h)	0	1745	66	0	0	0	0	0	0	121	231	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1781	67							123	236	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2482	93							747	1489	0
Arrive On Green	0.00	0.16	0.16							0.14	0.14	0.00
Sat Flow, veh/h	0	5215	190							1781	3647	0
Grp Volume(v), veh/h	0	1201	647							123	236	0
Grp Sat Flow(s),veh/h/ln	0	1702	1832							1781	1777	0
Q Serve(g_s), s	0.0	36.8	36.8							6.7	6.4	0.0
Cycle Q Clear(g_c), s	0.0	36.8	36.8							6.7	6.4	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	1674	901							747	1489	0
V/C Ratio(X)	0.00	0.72	0.72							0.16	0.16	0.00
Avail Cap(c_a), veh/h	0	1674	901							747	1489	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	38.8	38.8							30.4	30.3	0.0
Incr Delay (d2), s/veh	0.0	2.7	4.9							0.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.4	19.3							3.2	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.5	43.8							30.9	30.5	0.0
LnGrp LOS	A	D	D							C	C	A
Approach Vol, veh/h		1848									359	
Approach Delay, s/veh		42.3									30.7	
Approach LOS		D									C	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		59.0	51.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		54.1	46.1									
Max Q Clear Time (g_c+I1), s		38.8	8.7									
Green Ext Time (p_c), s		10.9	2.1									
Intersection Summary												
HCM 6th Ctrl Delay			40.4									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑				
Traffic Volume (veh/h)	21	1886	0	0	0	0	0	34	57	0	0	0
Future Volume (veh/h)	21	1886	0	0	0	0	0	34	57	0	0	0
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			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	22	1985	0				0	36	60			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	39	3704	0				0	357	318			
Arrive On Green	0.23	0.23	0.00				0.00	0.20	0.20			
Sat Flow, veh/h	54	5386	0				0	1870	1585			
Grp Volume(v), veh/h	755	1252	0				0	36	60			
Grp Sat Flow(s),veh/h/ln	1868	1702	0				0	1777	1585			
Q Serve(g_s), s	39.3	35.3	0.0				0.0	1.8	3.5			
Cycle Q Clear(g_c), s	39.3	35.3	0.0				0.0	1.8	3.5			
Prop In Lane	0.03		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1326	2417	0				0	357	318			
V/C Ratio(X)	0.57	0.52	0.00				0.00	0.10	0.19			
Avail Cap(c_a), veh/h	1326	2417	0				0	357	318			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	27.3	25.7	0.0				0.0	35.8	36.5			
Incr Delay (d2), s/veh	1.8	0.8	0.0				0.0	0.6	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.3	16.3	0.0				0.0	0.9	1.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	26.5	0.0				0.0	36.4	37.8			
LnGrp LOS	C	C	A				A	D	D			
Approach Vol, veh/h		2007						96				
Approach Delay, s/veh		27.5						37.3				
Approach LOS		C						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		83.0						27.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		78.1						22.1				
Max Q Clear Time (g_c+I1), s		41.3						5.5				
Green Ext Time (p_c), s		21.7						0.4				
Intersection Summary												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	32	790	710	101	84	173
Future Volume (veh/h)	32	790	710	101	84	173
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	34	849	763	109	90	186
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	43	3857	3132	444	468	215
Arrive On Green	0.02	0.77	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	4563	623	3456	1585
Grp Volume(v), veh/h	34	849	575	297	90	186
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1698	1728	1585
Q Serve(g_s), s	2.2	5.5	0.0	0.0	2.7	13.6
Cycle Q Clear(g_c), s	2.2	5.5	0.0	0.0	2.7	13.6
Prop In Lane	1.00			0.37	1.00	1.00
Lane Grp Cap(c), veh/h	43	3857	2367	1209	468	215
V/C Ratio(X)	0.79	0.22	0.24	0.25	0.19	0.87
Avail Cap(c_a), veh/h	319	3857	2367	1209	884	406
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.99	0.99	1.00	1.00
Uniform Delay (d), s/veh	57.3	3.6	0.0	0.0	45.3	50.0
Incr Delay (d2), s/veh	10.5	0.1	0.2	0.5	0.1	4.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	1.4	0.1	0.2	1.2	11.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.7	3.8	0.2	0.5	45.3	54.0
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		883	872		276	
Approach Delay, s/veh		6.2	0.3		51.2	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.1		20.9	7.3	89.8
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		7.5		15.6	4.2	2.0
Green Ext Time (p_c), s		19.0		0.4	0.0	16.2
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	0	869	16	39	835	20	11	0	21	10	0	9
Future Volume (veh/h)	0	869	16	39	835	20	11	0	21	10	0	9
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		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	896	16	40	861	0	11	0	22	10	0	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	720	3485	62	70	1567		40	0	31	271	0	118
Arrive On Green	0.00	1.00	1.00	0.04	0.31	0.00	0.02	0.00	0.02	0.08	0.00	0.08
Sat Flow, veh/h	1781	5040	90	1781	4985	1585	1781	0	1403	3456	0	1506
Grp Volume(v), veh/h	0	590	322	40	861	0	11	0	22	10	0	9
Grp Sat Flow(s), veh/h/ln	1781	1662	1807	1781	1662	1585	1781	0	1403	1728	0	1506
Q Serve(g_s), s	0.0	0.0	0.0	2.6	16.9	0.0	0.7	0.0	1.8	0.3	0.0	0.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6	16.9	0.0	0.7	0.0	1.8	0.3	0.0	0.7
Prop In Lane	1.00		0.05	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	720	2298	1249	70	1567		40	0	31	271	0	118
V/C Ratio(X)	0.00	0.26	0.26	0.57	0.55		0.28	0.00	0.70	0.04	0.00	0.08
Avail Cap(c_a), veh/h	720	2298	1249	168	1567		251	0	197	999	0	435
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	55.7	33.5	0.0	56.7	0.0	57.3	50.3	0.0	50.4
Incr Delay (d2), s/veh	0.0	0.3	0.5	2.8	1.4	0.0	1.4	0.0	10.0	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 BackOfQ(50%), veh/ln	0.0	0.1	0.2	1.2	6.8	0.0	0.3	0.0	0.7	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.3	0.5	58.5	34.9	0.0	58.1	0.0	67.3	50.3	0.0	50.5
LnGrp LOS	A	A	A	E	C		E	A	E	D	A	D
Approach Vol, veh/h	912			901			33			19		
Approach Delay, s/veh	0.3			36.0			64.2			50.4		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	87.3		14.2	53.4	42.9		7.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+14), s	2.0			2.7	0.0	18.9		3.8				
Green Ext Time (p_c), s	0.0	9.2		0.0	0.0	8.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 19.2

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
33: Harbor Island Dr & N Harbor Dr

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱	↰	↱	↱
Traffic Volume (veh/h)	338	466	94	212	533	8	98	45	176	140	50	295
Future Volume (veh/h)	338	466	94	212	533	8	98	45	176	140	50	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	376	518	104	236	592	9	109	50	0	156	56	328
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	467	2570	887	299	2127	32	204	110		303	319	264
Arrive On Green	0.26	0.52	0.52	0.09	0.33	0.33	0.06	0.06	0.00	0.17	0.17	0.17
Sat Flow, veh/h	1781	4985	1540	3456	6418	97	3456	1870	1585	1781	1870	1549
Grp Volume(v), veh/h	376	518	104	236	434	167	109	50	0	156	56	328
Grp Sat Flow(s), veh/h/ln	1781	1662	1540	1728	1570	1804	1728	1870	1585	1781	1870	1549
Q Serve(g_s), s	23.3	6.6	3.6	7.9	8.0	8.1	3.6	3.0	0.0	9.4	3.0	20.1
Cycle Q Clear(g_c), s	23.3	6.6	3.6	7.9	8.0	8.1	3.6	3.0	0.0	9.4	3.0	20.1
Prop In Lane	1.00		1.00	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	467	2570	887	299	1561	598	204	110		303	319	264
V/C Ratio(X)	0.81	0.20	0.12	0.79	0.28	0.28	0.53	0.45		0.51	0.18	1.24
Avail Cap(c_a), veh/h	467	2570	887	618	1561	598	691	374		303	319	264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00
Uniform Delay (d), s/veh	40.7	15.5	11.5	52.8	29.1	29.1	53.9	53.7	0.0	44.5	41.9	49.0
Incr Delay (d2), s/veh	9.2	0.2	0.3	1.8	0.4	1.2	0.8	1.1	0.0	1.5	0.3	137.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	2.4	1.4	3.4	3.0	3.6	1.6	1.5	0.0	4.2	1.4	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.9	15.6	11.7	54.6	29.5	30.2	54.8	54.8	0.0	46.0	42.1	186.2
LnGrp LOS	D	B	B	D	C	C	D	D		D	D	F
Approach Vol, veh/h	998			837			159			A		
Approach Delay, s/veh	28.2			36.7			54.8			130.8		
Approach LOS	C			D			D			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	66.5		25.0	36.6	44.5		11.9				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	21.1	13.6		20.1	15.6	* 39		23.6				
Max Q Clear Time (g_c+19, s)	19.9	8.6		22.1	25.3	10.1		5.6				
Green Ext Time (p_c), s	0.3	2.4		0.0	0.0	9.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Notes

- User approved pedestrian interval to be less than phase max green.
- User approved volume balancing among the lanes for turning movement.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	0	14	3	4	23	7	227	2	28	264	61
Future Volume (veh/h)	72	0	14	3	4	23	7	227	2	28	264	61
Initial Q (Qb), 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		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	0	0	3	17	16	7	239	2	29	278	64
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	127	0	9	54	54	198	1083	9	208	871	196
Arrive On Green	0.07	0.00	0.00	0.03	0.03	0.03	0.11	0.30	0.30	0.12	0.31	0.31
Sat Flow, veh/h	3563	1870	0	278	1578	1573	1781	3610	30	1781	2849	642
Grp Volume(v), veh/h	90	0	0	20	0	16	7	118	123	29	171	171
Grp Sat Flow(s), veh/h/ln	1781	1870	0	1856	0	1573	1781	1777	1863	1781	1777	1714
Q Serve(g_s), s	0.8	0.0	0.0	0.3	0.0	0.3	0.1	1.6	1.7	0.5	2.5	2.6
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.3	0.0	0.3	0.1	1.6	1.7	0.5	2.5	2.6
Prop In Lane	1.00		0.00	0.15		1.00	1.00		0.02	1.00		0.37
Lane Grp Cap(c), veh/h	242	127	0	63	0	54	198	533	559	208	543	524
V/C Ratio(X)	0.37	0.00	0.00	0.32	0.00	0.30	0.04	0.22	0.22	0.14	0.31	0.33
Avail Cap(c_a), veh/h	4287	2251	0	2234	0	1893	1340	2673	2803	2144	2673	2578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	0.0	15.7	0.0	15.7	13.2	8.7	8.7	13.2	8.9	8.9
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.1	0.0	1.1	0.0	0.2	0.1	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 BackOfQ(50%), veh/ln	0.3	0.0	0.0	0.1	0.0	0.1	0.0	0.4	0.5	0.2	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	0.0	0.0	16.7	0.0	16.8	13.2	8.9	8.9	13.3	9.1	9.2
LnGrp LOS	B	A	A	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	90			36			248			371		
Approach Delay, s/veh	15.5			16.8			9.0			9.5		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	14.0		6.3	7.7	14.2		5.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	40.0	50.0		40.0	25.0	50.0		40.0				
Max Q Clear Time (g_c+I), s	12.5	3.7		2.8	2.1	4.6		2.3				
Green Ext Time (p_c), s	0.0	1.1		0.2	0.0	1.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay 10.4

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	170	8	8	65	100	190
Future Volume (veh/h)	170	8	8	65	100	190
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	0	9	0	110	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	616	323	1025		207	
Arrive On Green	0.17	0.00	0.55	0.00	0.06	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	193	0	9	0	110	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	2.6	0.0	0.1	0.0	1.7	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.1	0.0	1.7	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	616	323	1025		207	
V/C Ratio(X)	0.31	0.00	0.01		0.53	
Avail Cap(c_a), veh/h	3253	1708	1025		2524	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	0.0	5.6	0.0	25.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	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 BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	0.0	5.6	0.0	27.1	0.0
LnGrp LOS	C	A	A		C	
Approach Vol, veh/h		193	9	A	110	A
Approach Delay, s/veh		20.1	5.6		27.1	
Approach LOS		C	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.5		7.3		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+I1), s		4.6		3.7		2.1
Green Ext Time (p_c), s		0.7		0.4		0.0

Intersection Summary

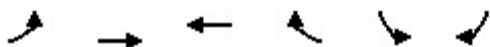
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	13	92	63	0	1	1
Future Vol, veh/h	13	92	63	0	1	1
Conflicting Peds, #/hr	6	0	0	6	0	1
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	108	74	0	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	80	0	-	0	164	44
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	84	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1516	-	-	-	811	1017
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	930	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1507	-	-	-	792	1010
Mov Cap-2 Maneuver	-	-	-	-	792	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	924	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.9	0		9.1		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1507	-	-	-	888	
HCM Lane V/C Ratio	0.01	-	-	-	0.003	
HCM Control Delay (s)	7.4	0	-	-	9.1	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1422	715	0	0	0
Future Volume (veh/h)	0	1422	715	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	0	1466	737	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	2	4761	7063		3	1
Arrive On Green	0.00	0.96	0.96	0.00	0.00	0.00
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	0	1466	737	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	0.0	2.2	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.2	0.6	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2	4761	7063		3	1
V/C Ratio(X)	0.00	0.31	0.10		0.00	0.00
Avail Cap(c_a), veh/h	319	4761	7063		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.2	0.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.3	0.2	0.0	0.0	0.0
LnGrp LOS	A	A	A		A	A
Approach Vol, veh/h		1466	737	A	0	
Approach Delay, s/veh		0.3	0.2		0.0	
Approach LOS		A	A			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.0		0.0	0.0	118.0
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		4.2		0.0	0.0	2.6
Green Ext Time (p_c), s		43.2		0.0	0.0	14.1
Intersection Summary						
HCM 6th Ctrl Delay			0.3			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3189	21	54	537	0	16	0	56	0	0	0
Future Volume (veh/h)	0	3189	21	54	537	0	16	0	56	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	0.99		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3288	22	56	554	0	16	0	58	0	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	2	4961	1211	98	5374	0	143	0	82	61	108	0
Arrive On Green	0.00	0.79	0.79	0.06	1.00	0.00	0.06	0.00	0.06	0.00	0.00	0.00
Sat Flow, veh/h	1781	6281	1533	3456	6537	0	1410	0	1419	1345	1870	0
Grp Volume(v), veh/h	0	3288	22	56	554	0	16	0	58	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1570	1533	1728	1570	0	1410	0	1419	1345	1870	0
Q Serve(g_s), s	0.0	27.3	0.4	1.9	0.0	0.0	1.3	0.0	4.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	27.3	0.4	1.9	0.0	0.0	1.3	0.0	4.7	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	4961	1211	98	5374	0	143	0	82	61	108	0
V/C Ratio(X)	0.00	0.66	0.02	0.57	0.10	0.00	0.11	0.00	0.70	0.00	0.00	0.00
Avail Cap(c_a), veh/h	168	4961	1211	618	5374	0	356	0	297	265	392	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	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	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	5.5	2.6	54.9	0.0	0.0	53.0	0.0	54.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	1.9	0.0	0.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	0.1	0.8	0.0	0.0	0.5	0.0	1.8	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.2	2.7	56.8	0.0	0.0	53.1	0.0	58.6	0.0	0.0	0.0
LnGrp LOS	A	A	A	E	A	A	D	A	E	A	A	A
Approach Vol, veh/h	3310					610		74		0		
Approach Delay, s/veh	6.2					5.3		57.4		0.0		
Approach LOS	A					A		E				
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.8	98.5	11.7		0.0	106.3	11.7					
Change Period (Y+Rc), s	4.4	5.3	4.9		4.4	5.3	4.9					
Max Green Setting (Gmax), s	21.5	57.6	24.7		11.1	67.6	24.7					
Max Q Clear Time (g_c+I), s	13.9	29.3	0.0		0.0	2.0	6.7					
Green Ext Time (p_c), s	0.1	28.3	0.0		0.0	9.6	0.1					
Intersection Summary												
HCM 6th Ctrl Delay			7.0									
HCM 6th LOS			A									
Notes												

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑			↰ ↑↑↑			↰			↰ ↰		↰
Traffic Volume (veh/h)	15	3065	1	8	181	99	1	0	1	5	0	5
Future Volume (veh/h)	15	3065	1	8	181	99	1	0	1	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	0.97		0.97	0.97		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	3193	1	8	189	103	1	0	1	5	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	25	4161	1	60	3903	1265	61	11	26	214	0	52
Arrive On Green	0.00	0.27	0.27	0.03	0.83	0.83	0.03	0.00	0.03	0.03	0.00	0.03
Sat Flow, veh/h	1781	5147	2	1781	4711	1528	455	317	772	2676	0	1543
Grp Volume(v), veh/h	16	2061	1133	8	189	103	2	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	1826	1781	1570	1528	1543	0	0	1338	0	1543
Q Serve(g_s), s	1.1	67.5	67.5	0.5	0.8	1.5	0.0	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s	1.1	67.5	67.5	0.5	0.8	1.5	0.1	0.0	0.0	0.2	0.0	0.4
Prop In Lane	1.00		0.00	1.00		1.00	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	25	2686	1476	60	3903	1265	98	0	0	214	0	52
V/C Ratio(X)	0.65	0.77	0.77	0.13	0.05	0.08	0.02	0.00	0.00	0.02	0.00	0.10
Avail Cap(c_a), veh/h	168	2686	1476	168	3903	1265	415	0	0	796	0	388
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.4	33.0	33.0	55.3	1.8	1.9	55.1	0.0	0.0	55.1	0.0	55.2
Incr Delay (d2), s/veh	7.2	1.5	2.7	0.4	0.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	30.3	33.8	0.2	0.1	0.3	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	34.5	35.7	55.7	1.8	2.0	55.2	0.0	0.0	55.2	0.0	55.5
LnGrp LOS	E	C	D	E	A	A	E	A	A	E	A	E
Approach Vol, veh/h	3210				300		2		10			
Approach Delay, s/veh	35.1				3.3		55.2		55.3			
Approach LOS	D				A		E		E			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	100.7			8.9	6.0	103.1	8.9					
Change Period (Y+Rc), s	4.4	5.3	4.9		4.4	5.3	4.9					
Max Green Setting (Gmax), s	62.6			29.7	11.1	62.6	29.7					
Max Q Clear Time (g_c+I), s	69.5			2.4	3.1	3.5	2.1					
Green Ext Time (p_c), s	0.0	0.0	0.0		0.0	4.2	0.0					
Intersection Summary												
HCM 6th Ctrl Delay			32.5									
HCM 6th LOS			C									
Notes												

SDCRAA ADP EIR
40: Coast Guard Dwy/Terminal Link Rd & N Harbor Dr

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱								
Traffic Volume (veh/h)	0	3046	11	27	357	0	0	0	28	0	0	0
Future Volume (veh/h)	0	3046	11	27	357	0	0	0	28	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	0	3140	11	28	368	0						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	3	4311	15	43	4620	0						
Arrive On Green	0.00	0.84	0.84	0.02	0.93	0.00						
Sat Flow, veh/h	1781	5126	18	1781	5149	0						
Grp Volume(v), veh/h	0	2034	1117	28	368	0						
Grp Sat Flow(s),veh/h/ln	1781	1662	1821	1781	1662	0						
Q Serve(g_s), s	0.0	17.8	17.9	1.1	0.4	0.0						
Cycle Q Clear(g_c), s	0.0	17.8	17.9	1.1	0.4	0.0						
Prop In Lane	1.00		0.01	1.00		0.00						
Lane Grp Cap(c), veh/h	3	2795	1532	43	4620	0						
V/C Ratio(X)	0.00	0.73	0.73	0.66	0.08	0.00						
Avail Cap(c_a), veh/h	752	2806	1538	752	4620	0						
HCM Platoon Ratio	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	0.00						
Uniform Delay (d), s/veh	0.0	2.3	2.3	34.4	0.2	0.0						
Incr Delay (d2), s/veh	0.0	1.4	2.6	6.3	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	0.6	1.1	0.5	0.0	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.7	4.9	40.7	0.2	0.0						
LnGrp LOS	A	A	A	D	A	A						
Approach Vol, veh/h	3151			396								
Approach Delay, s/veh	4.2			3.1								
Approach LOS	A			A								
Timer - Assigned Phs	1	2			5	6						
Phs Duration (G+Y+Rc), s	65.0				0.0	71.1						
Change Period (Y+Rc), s	4.4	5.2			4.4	5.2						
Max Green Setting (Gmax), s	30.0	60.0			30.0	60.0						
Max Q Clear Time (g_c+I13, s)	19.9				0.0	2.4						
Green Ext Time (p_c), s	0.0	39.8			0.0	6.5						
Intersection Summary												
HCM 6th Ctrl Delay				4.0								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	119	0	0	1298	250
Future Vol, veh/h	0	119	0	0	1298	250
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	127	0	0	1381	266

Major/Minor	Minor2		Major2	
Conflicting Flow All	1519	829	-	0
Stage 1	1519	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	168	269	-	-
Stage 1	115	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	166	268	-	-
Mov Cap-2 Maneuver	166	-	-	-
Stage 1	114	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	29.9	0
HCM LOS	D	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	268	-	-
HCM Lane V/C Ratio	-	0.472	-	-
HCM Control Delay (s)	0	29.9	-	-
HCM Lane LOS	A	D	-	-
HCM 95th %tile Q(veh)	-	2.4	-	-

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Existing Conditions with Project
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	87	514	46	55	545	210	40	39	31	173	40	133
Future Volume (veh/h)	87	514	46	55	545	210	40	39	31	173	40	133
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	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	524	47	56	556	214	41	40	32	177	41	136
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	2161	655	72	2040	619	377	390	335	548	685	605
Arrive On Green	0.02	0.14	0.14	0.04	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	5106	1548	1781	5106	1550	821	1012	869	1318	1777	1571
Grp Volume(v), veh/h	89	524	47	56	556	214	56	0	57	177	41	136
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1550	1165	0	1537	1318	1777	1571
Q Serve(g_s), s	5.1	9.3	2.7	3.2	7.5	9.8	1.9	0.0	2.4	10.1	1.5	5.9
Cycle Q Clear(g_c), s	5.1	9.3	2.7	3.2	7.5	9.8	7.9	0.0	2.4	12.5	1.5	5.9
Prop In Lane	1.00		1.00	1.00		1.00	0.73		0.57	1.00		1.00
Lane Grp Cap(c), veh/h	114	2161	655	72	2040	619	510	0	592	548	685	605
V/C Ratio(X)	0.78	0.24	0.07	0.78	0.27	0.35	0.11	0.00	0.10	0.32	0.06	0.22
Avail Cap(c_a), veh/h	246	2161	655	194	2040	619	510	0	592	548	685	605
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	29.3	26.5	48.5	20.6	21.3	22.1	0.0	20.0	24.0	19.7	21.1
Incr Delay (d2), s/veh	4.1	0.3	0.2	6.3	0.3	1.5	0.4	0.0	0.3	1.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	4.0	1.0	1.5	2.9	3.6	1.0	0.0	0.9	3.3	0.6	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	29.6	26.7	54.7	21.0	22.8	22.6	0.0	20.3	25.0	19.8	21.6
LnGrp LOS	D	C	C	D	C	C	C	A	C	C	B	C
Approach Vol, veh/h		660			826			113			354	
Approach Delay, s/veh		32.6			23.7			21.5			23.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	49.3		44.2	10.9	46.9		44.2				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	11.1	* 37		39.3	14.1	33.2		39.3				
Max Q Clear Time (g_c+I1), s	5.2	11.3		14.5	7.1	11.8		9.9				
Green Ext Time (p_c), s	0.0	5.9		4.0	0.0	9.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	362	0	0	446	286	0	0	0	277	0	33
Future Volume (veh/h)	22	362	0	0	446	286	0	0	0	277	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	398	0	0	490	0	0	0	0	338	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	2652	0	2	2430		0	2	2	485	258	0
Arrive On Green	0.02	0.75	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.14	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3516	1870	0
Grp Volume(v), veh/h	24	398	0	0	490	0	0	0	0	338	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1758	1870	0
Q Serve(g_s), s	1.4	3.3	0.0	0.0	11.4	0.0	0.0	0.0	0.0	9.4	0.0	0.0
Cycle Q Clear(g_c), s	1.4	3.3	0.0	0.0	11.4	0.0	0.0	0.0	0.0	9.4	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	34	2652	0	2	2430		0	2	2	485	258	0
V/C Ratio(X)	0.70	0.15	0.00	0.00	0.20		0.00	0.00	0.00	0.70	0.00	0.00
Avail Cap(c_a), veh/h	176	2652	0	176	2430		0	182	154	1279	680	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.80	0.00	0.00
Uniform Delay (d), s/veh	49.7	3.7	0.0	0.0	16.9	0.0	0.0	0.0	0.0	41.9	0.0	0.0
Incr Delay (d2), s/veh	9.0	0.1	0.0	0.0	0.2	0.0	0.0	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 BackOfQ(50%),veh/ln	0.7	0.9	0.0	0.0	5.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.7	3.8	0.0	0.0	17.1	0.0	0.0	0.0	0.0	42.5	0.0	0.0
LnGrp LOS	E	A	A	A	B		A	A	A	D	A	A
Approach Vol, veh/h	422					490	A		0		338	
Approach Delay, s/veh	6.9					17.1			0.0		42.5	
Approach LOS	A					B					D	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	0.0	82.0	20.0		6.4	75.7	0.0					
Change Period (Y+Rc), s	4.4	* 5.9	5.9		4.4	5.9	4.9					
Max Green Setting (Gmax), s	10.5	* 25	37.1		10.1	23.8	9.9					
Max Q Clear Time (g_c+I10), s	0.5	5.3	11.4		3.4	13.4	0.0					
Green Ext Time (p_c), s	0.0	5.5	0.6		0.0	3.6	0.0					

Intersection Summary

HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

Existing Conditions with Project
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	253	161	51	219	109	176	654	51	117	720	85
Future Volume (veh/h)	204	253	161	51	219	109	176	654	51	117	720	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	264	168	53	228	114	183	681	53	122	750	89
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	460	281	68	426	315	210	1642	128	148	1458	173
Arrive On Green	0.13	0.22	0.22	0.04	0.12	0.12	0.12	0.49	0.49	0.08	0.46	0.46
Sat Flow, veh/h	1781	2089	1277	1781	3554	1530	1781	3338	260	1781	3191	378
Grp Volume(v), veh/h	212	223	209	53	228	114	183	362	372	122	418	421
Grp Sat Flow(s),veh/h/ln	1781	1777	1590	1781	1777	1530	1781	1777	1821	1781	1777	1792
Q Serve(g_s), s	13.6	13.0	13.7	3.4	7.0	5.0	11.7	15.1	15.1	7.8	19.3	19.4
Cycle Q Clear(g_c), s	13.6	13.0	13.7	3.4	7.0	5.0	11.7	15.1	15.1	7.8	19.3	19.4
Prop In Lane	1.00		0.80	1.00		1.00	1.00		0.14	1.00		0.21
Lane Grp Cap(c), veh/h	239	391	350	68	426	315	210	874	896	148	812	819
V/C Ratio(X)	0.89	0.57	0.60	0.78	0.54	0.36	0.87	0.41	0.42	0.82	0.51	0.51
Avail Cap(c_a), veh/h	275	545	488	170	891	516	243	874	896	243	812	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	40.3	40.6	55.3	48.0	20.1	50.3	18.8	18.8	52.3	22.3	22.4
Incr Delay (d2), s/veh	23.3	0.5	0.6	6.8	0.4	0.3	22.6	1.4	1.4	4.6	2.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	5.7	5.4	1.7	3.1	2.1	6.5	6.5	6.7	3.7	8.5	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	40.8	41.2	62.1	48.4	20.4	72.9	20.3	20.2	56.9	24.7	24.7
LnGrp LOS	E	D	D	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h	644					395	917			961		
Approach Delay, s/veh	51.4					42.1	30.8			28.8		
Approach LOS	D					D	C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.1	62.4	8.8	30.7	18.1	58.3	20.8	18.8				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	15.8	* 35	11.1	35.6	15.8	34.2	17.9	* 29				
Max Q Clear Time (g_c+I), s	19.8	17.1	5.4	15.7	13.7	21.4	15.6	9.0				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.0	0.0	1.7	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	460	152	203	191	60	172	190	501	99	240	78
Future Volume (veh/h)	70	460	152	203	191	60	172	190	501	99	240	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	495	163	218	205	65	185	204	539	106	258	84
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	919	585	287	537	438	216	1330	680	133	1164	432
Arrive On Green	0.05	0.26	0.26	0.08	0.29	0.29	0.12	0.37	0.37	0.07	0.33	0.33
Sat Flow, veh/h	1781	3554	1518	3456	1870	1524	1781	3554	1466	1781	3554	1320
Grp Volume(v), veh/h	75	495	163	218	205	65	185	204	539	106	258	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1518	1728	1870	1524	1781	1777	1466	1781	1777	1320
Q Serve(g_s), s	4.6	13.4	8.3	6.9	9.8	3.5	11.4	4.3	35.3	6.5	5.9	5.1
Cycle Q Clear(g_c), s	4.6	13.4	8.3	6.9	9.8	3.5	11.4	4.3	35.3	6.5	5.9	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	97	919	585	287	537	438	216	1330	680	133	1164	432
V/C Ratio(X)	0.78	0.54	0.28	0.76	0.38	0.15	0.86	0.15	0.79	0.80	0.22	0.19
Avail Cap(c_a), veh/h	479	1273	736	928	670	546	479	1330	680	479	1273	473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	35.6	24.0	50.1	31.9	29.6	48.1	23.2	26.0	50.8	27.2	27.0
Incr Delay (d2), s/veh	4.9	0.6	0.3	1.6	0.2	0.1	3.8	0.1	6.4	4.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.9	3.0	3.0	4.5	1.3	5.3	1.8	13.1	3.1	2.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	36.2	24.4	51.7	32.1	29.7	51.9	23.2	32.4	54.9	27.3	27.0
LnGrp LOS	E	D	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		733			488			928			448	
Approach Delay, s/veh		35.7			40.5			34.3			33.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.7	34.8	18.9	43.3	11.5	38.0	13.7	48.5				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+l1), s	8.9	15.4	13.4	7.9	6.6	11.8	8.5	37.3				
Green Ext Time (p_c), s	0.4	4.9	0.2	1.3	0.1	1.0	0.1	1.0				
Intersection Summary												
HCM 6th Ctrl Delay			35.8									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Volume (veh/h)	37	0	70	75	0	69	17	644	32	65	541	5
Future Volume (veh/h)	37	0	70	75	0	69	17	644	32	65	541	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	0	80	85	0	78	19	732	36	74	615	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	44	238	509	0	456	34	1795	88	97	2064	20
Arrive On Green	0.24	0.00	0.24	0.24	0.00	0.24	0.02	0.36	0.36	0.05	0.40	0.40
Sat Flow, veh/h	333	183	983	1407	0	1524	1781	4983	244	1781	5214	51
Grp Volume(v), veh/h	122	0	0	85	0	78	19	499	269	74	401	220
Grp Sat Flow(s), veh/h/ln	1498	0	0	1407	0	1524	1781	1702	1824	1781	1702	1861
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.6	0.5	4.7	4.7	1.8	3.5	3.5
Cycle Q Clear(g_c), s	2.6	0.0	0.0	1.7	0.0	1.6	0.5	4.7	4.7	1.8	3.5	3.5
Prop In Lane	0.34		0.66	1.00		1.00	1.00		0.13	1.00		0.03
Lane Grp Cap(c), veh/h	476	0	0	509	0	456	34	1226	657	97	1348	737
V/C Ratio(X)	0.26	0.00	0.00	0.17	0.00	0.17	0.56	0.41	0.41	0.76	0.30	0.30
Avail Cap(c_a), veh/h	1468	0	0	1401	0	1509	1247	4765	2553	1247	4765	2605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	0.0	12.9	0.0	11.2	20.9	10.3	10.3	20.0	8.9	8.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.1	5.4	0.3	0.5	4.5	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 BackOfQ(50%), veh/ln	0.8	0.0	0.0	0.6	0.0	0.5	0.2	1.4	1.6	0.8	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.4	0.0	0.0	13.0	0.0	11.2	26.3	10.6	10.8	24.5	9.0	9.1
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	A	A
Approach Vol, veh/h		122			163			787			695	
Approach Delay, s/veh		13.4			12.2			11.0			10.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	20.8		15.3	5.2	22.4		15.3				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.8	6.7		4.6	2.5	5.5		3.7				
Green Ext Time (p_c), s	0.1	8.3		0.5	0.0	5.4		0.5				

Intersection Summary

HCM 6th Ctrl Delay 11.2

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
3: Pacific Hwy & Enterprise St/SPAWAR Dwy

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	12	119	160	35	175	138	594	14	30	1227	62
Future Volume (veh/h)	130	12	119	160	35	175	138	594	14	30	1227	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		0.86	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	13	125	168	37	184	145	625	15	32	1292	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	375	274	194	408	297	175	1762	767	41	1474	74
Arrive On Green	0.09	0.20	0.20	0.11	0.22	0.22	0.10	0.50	0.50	0.02	0.43	0.43
Sat Flow, veh/h	1781	1870	1362	1781	1870	1364	1781	3554	1547	1781	3442	173
Grp Volume(v), veh/h	137	13	125	168	37	184	145	625	15	32	666	691
Grp Sat Flow(s),veh/h/ln	1781	1870	1362	1781	1870	1364	1781	1777	1547	1781	1777	1839
Q Serve(g_s), s	10.3	0.8	11.0	12.7	2.2	16.6	10.9	14.7	0.7	2.4	46.7	46.9
Cycle Q Clear(g_c), s	10.3	0.8	11.0	12.7	2.2	16.6	10.9	14.7	0.7	2.4	46.7	46.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	163	375	274	194	408	297	175	1762	767	41	761	787
V/C Ratio(X)	0.84	0.03	0.46	0.87	0.09	0.62	0.83	0.35	0.02	0.78	0.88	0.88
Avail Cap(c_a), veh/h	392	412	300	392	412	300	392	1762	767	392	782	809
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.9	43.8	47.9	59.8	42.5	48.2	60.3	21.0	17.5	66.2	35.7	35.7
Incr Delay (d2), s/veh	4.4	0.0	0.4	4.5	0.0	2.8	13.2	0.2	0.0	11.3	12.1	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.4	3.8	6.0	1.0	5.9	5.6	6.2	0.2	1.2	22.5	23.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.3	43.9	48.4	64.3	42.6	51.0	73.5	21.2	17.5	77.6	47.7	47.6
LnGrp LOS	E	D	D	E	D	D	E	C	B	E	D	D
Approach Vol, veh/h	275			389			785			1389		
Approach Delay, s/veh	56.6			55.9			30.8			48.4		
Approach LOS	E			E			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.5	76.3	19.2	32.3	17.8	67.1	16.9	34.6				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.4	16.7	14.7	13.0	12.9	48.9	12.3	18.6				
Green Ext Time (p_c), s	0.0	6.3	0.2	0.3	0.5	9.4	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay	45.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	385	43	196	87	0	0	0	0	492	71	41
Future Volume (veh/h)	0	385	43	196	87	0	0	0	0	492	71	41
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	414	46	211	94	0				583	0	44
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	349	697	308	365	698	0				876	0	700
Arrive On Green	0.00	0.20	0.20	0.21	0.21	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1781	3554	1569	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	414	46	211	94	0				583	0	44
Grp Sat Flow(s), veh/h/ln	1781	1777	1569	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	4.4	1.0	4.4	0.9	0.0				6.1	0.0	0.7
Cycle Q Clear(g_c), s	0.0	4.4	1.0	4.4	0.9	0.0				6.1	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	349	697	308	365	698	0				876	0	700
V/C Ratio(X)	0.00	0.59	0.15	0.58	0.13	0.00				0.67	0.00	0.06
Avail Cap(c_a), veh/h	2601	5189	2291	2601	4971	0				3035	0	1659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.0	13.7	14.7	13.3	0.0				14.0	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.6	0.1	0.0				0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	1.3	0.3	1.5	0.3	0.0				2.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.3	13.8	16.3	13.4	0.0				14.3	0.0	6.6
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	460			305			627					
Approach Delay, s/veh	15.2			15.5			13.8					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	12.1			16.3			12.7					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	6.4			8.1			6.4					
Green Ext Time (p_c), s	1.7			1.2			2.0					

Intersection Summary

HCM 6th Ctrl Delay 14.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	787	0	0	234	257	25	13	193	37	0	227
Future Volume (veh/h)	88	787	0	0	234	257	25	13	193	37	0	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	865	0	0	257	282	27	14	212	41	0	249
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	130	1371	0	0	443	396	331	18	277	49	0	300
Arrive On Green	0.07	0.39	0.00	0.00	0.25	0.25	0.19	0.19	0.19	0.22	0.00	0.22
Sat Flow, veh/h	1781	3647	0	0	1870	1585	1781	98	1490	224	0	1359
Grp Volume(v), veh/h	97	865	0	0	257	282	27	0	226	290	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1588	1582	0	0
Q Serve(g_s), s	3.8	14.1	0.0	0.0	9.0	11.6	0.9	0.0	9.6	12.4	0.0	0.0
Cycle Q Clear(g_c), s	3.8	14.1	0.0	0.0	9.0	11.6	0.9	0.0	9.6	12.4	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.94	0.14		0.86
Lane Grp Cap(c), veh/h	130	1371	0	0	443	396	331	0	295	349	0	0
V/C Ratio(X)	0.75	0.63	0.00	0.00	0.58	0.71	0.08	0.00	0.77	0.83	0.00	0.00
Avail Cap(c_a), veh/h	751	2997	0	0	1499	1337	1002	0	893	890	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.3	17.7	0.0	0.0	23.4	24.4	24.0	0.0	27.5	26.5	0.0	0.0
Incr Delay (d2), s/veh	9.8	0.2	0.0	0.0	1.4	2.9	0.0	0.0	1.6	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.9	0.0	0.0	3.6	4.2	0.4	0.0	3.6	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	17.9	0.0	0.0	24.9	27.3	24.0	0.0	29.1	28.4	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	962				539		253		290			
Approach Delay, s/veh	20.4				26.1		28.5		28.4			
Approach LOS	C				C		C		C			
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	31.8		19.7		9.7		22.1		19.6			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	16.1		14.4		5.8		13.6		11.6			
Green Ext Time (p_c), s	3.9		1.3		0.3		4.2		1.0			

Intersection Summary

HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	815	203	253	365	0	0	0	0	858	391	143
Future Volume (veh/h)	0	815	203	253	365	0	0	0	0	858	391	143
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	858	214	266	384	0				903	412	151
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1530	669	346	2072	0				1070	562	473
Arrive On Green	0.00	0.43	0.43	0.20	1.00	0.00				0.30	0.30	0.30
Sat Flow, veh/h	0	3647	1554	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	858	214	266	384	0				903	412	151
Grp Sat Flow(s),veh/h/ln	0	1777	1554	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	15.2	7.6	6.1	0.0	0.0				20.0	16.6	6.2
Cycle Q Clear(g_c), s	0.0	15.2	7.6	6.1	0.0	0.0				20.0	16.6	6.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1530	669	346	2072	0				1070	562	473
V/C Ratio(X)	0.00	0.56	0.32	0.77	0.19	0.00				0.84	0.73	0.32
Avail Cap(c_a), veh/h	0	1530	669	703	2072	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.0	15.8	32.7	0.0	0.0				27.5	26.4	22.7
Incr Delay (d2), s/veh	0.0	1.2	1.0	1.3	0.2	0.0				3.3	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	2.6	2.3	0.1	0.0				8.6	7.4	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	16.8	34.0	0.2	0.0				30.8	28.3	22.9
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		1072			650						1466	
Approach Delay, s/veh		18.7			14.0						29.3	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	2.8	41.1		30.1		53.9						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I1), s	13.1	17.2		22.0		2.0						
Green Ext Time (p_c), s	0.3	2.1		3.2		2.8						

Intersection Summary

HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑			↑↑	↔		↔↔↔				
Traffic Volume (veh/h)	382	1286	0	0	488	448	121	220	37	0	0	0
Future Volume (veh/h)	382	1286	0	0	488	448	121	220	37	0	0	0
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		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	402	1354	0	0	514	472	127	232	39			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1223	2654	0	0	1189	530	214	431	72			
Arrive On Green	0.71	1.00	0.00	0.00	0.33	0.33	0.14	0.14	0.14			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1570	3155	524			
Grp Volume(v), veh/h	402	1354	0	0	514	472	145	122	131			
Grp Sat Flow(s), veh/h/ln	1728	1777	0	0	1777	1585	1792	1702	1755			
Q Serve(g_s), s	3.7	0.0	0.0	0.0	9.5	23.7	6.4	5.6	5.8			
Cycle Q Clear(g_c), s	3.7	0.0	0.0	0.0	9.5	23.7	6.4	5.6	5.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.88		0.30			
Lane Grp Cap(c), veh/h	1223	2654	0	0	1189	530	245	232	240			
V/C Ratio(X)	0.33	0.51	0.00	0.00	0.43	0.89	0.59	0.53	0.54			
Avail Cap(c_a), veh/h	1223	2654	0	0	1189	530	599	569	587			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.61	0.61	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.5	0.0	0.0	0.0	21.7	26.5	34.1	33.7	33.8			
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	1.1	19.7	0.9	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.2	0.0	0.0	3.8	10.9	2.8	2.3	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.4	0.0	0.0	22.9	46.2	34.9	34.4	34.5			
LnGrp LOS	A	A	A	A	C	D	C	C	C			
Approach Vol, veh/h	1756			986			398					
Approach Delay, s/veh	2.3			34.0			34.6					
Approach LOS	A			C			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.6			34.6			33.0			16.4		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			5.7			25.7			8.4		
Green Ext Time (p_c), s	15.7			0.9			1.2			1.4		

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↩		↩↩↩					
Traffic Volume (veh/h)	0	0	0	0	24	40	21	1358	23	0	0	0
Future Volume (veh/h)	0	0	0	0	24	40	21	1358	23	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	25	42	22	1429	24			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	32	54	105	3450	57			
Arrive On Green				0.00	0.05	0.05	0.69	0.69	0.69			
Sat Flow, veh/h				0	627	1054	27	4987	83			
Grp Volume(v), veh/h				0	0	67	540	448	487			
Grp Sat Flow(s),veh/h/ln				0	0	1681	1862	1549	1686			
Q Serve(g_s), s				0.0	0.0	1.7	0.0	5.4	5.4			
Cycle Q Clear(g_c), s				0.0	0.0	1.7	5.4	5.4	5.4			
Prop In Lane				0.00		0.63	0.04		0.05			
Lane Grp Cap(c), veh/h				0	0	86	1375	1072	1166			
V/C Ratio(X)				0.00	0.00	0.78	0.39	0.42	0.42			
Avail Cap(c_a), veh/h				0	0	1557	2662	2152	2342			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	20.2	2.9	2.9	2.9			
Incr Delay (d2), s/veh				0.0	0.0	5.6	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.7	0.6	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	25.9	3.2	3.3	3.2			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					67			1475				
Approach Delay, s/veh					25.9			3.2				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		35.5						7.7				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+l1), s		7.4						3.7				
Green Ext Time (p_c), s		22.5						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.2									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	224	100	291	304	79	177	445	66	148	1019	62
Future Volume (veh/h)	109	224	100	291	304	79	177	445	66	148	1019	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	238	106	310	323	84	188	473	70	157	1084	66
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	299	253	342	387	101	220	1662	241	188	1730	105
Arrive On Green	0.08	0.16	0.16	0.19	0.27	0.27	0.12	0.37	0.37	0.11	0.35	0.35
Sat Flow, veh/h	1781	1870	1579	1781	1430	372	1781	4500	653	1781	4919	299
Grp Volume(v), veh/h	116	238	106	310	0	407	188	356	187	157	750	400
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	0	1802	1781	1702	1749	1781	1702	1814
Q Serve(g_s), s	7.0	13.4	6.6	18.7	0.0	23.3	11.3	8.1	8.3	9.5	20.1	20.1
Cycle Q Clear(g_c), s	7.0	13.4	6.6	18.7	0.0	23.3	11.3	8.1	8.3	9.5	20.1	20.1
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.37	1.00		0.16
Lane Grp Cap(c), veh/h	144	299	253	342	0	488	220	1258	646	188	1197	638
V/C Ratio(X)	0.80	0.80	0.42	0.91	0.00	0.83	0.86	0.28	0.29	0.84	0.63	0.63
Avail Cap(c_a), veh/h	488	683	576	488	0	658	488	1864	957	488	1864	993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	49.5	44.3	41.5	43.3	0.0	37.7	47.1	24.3	24.4	48.1	29.5	29.6
Incr Delay (d2), s/veh	3.9	1.8	0.4	13.0	0.0	6.8	3.7	0.2	0.5	3.7	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	6.4	2.6	9.5	0.0	11.2	5.2	3.2	3.5	4.3	8.2	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	46.1	41.9	56.3	0.0	44.5	50.8	24.6	24.9	51.8	30.5	31.4
LnGrp LOS	D	D	D	E	A	D	D	C	C	D	C	C
Approach Vol, veh/h	460			717			731			1307		
Approach Delay, s/veh	47.0			49.6			31.4			33.3		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	45.8	45.8	25.4	22.4	17.9	43.8	13.3	34.6				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	11.5	10.3	20.7	15.4	13.3	22.1	9.0	25.3				
Green Ext Time (p_c), s	0.2	7.0	0.4	1.1	0.2	16.4	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Existing Conditions with Project

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	233	236	54	206	0	0	0	0	240	1836	453
Future Volume (veh/h)	0	233	236	54	206	0	0	0	0	240	1836	453
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	251	254	58	222	0				258	1974	487
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	402	340	111	459	0				1145	2649	629
Arrive On Green	0.00	0.22	0.22	0.22	0.22	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	1870	1581	249	2217	0				1781	4119	979
Grp Volume(v), veh/h	0	251	254	126	154	0				258	1618	843
Grp Sat Flow(s),veh/h/ln	0	1870	1581	763	1617	0				1781	1702	1694
Q Serve(g_s), s	0.0	11.2	13.8	5.5	7.6	0.0				5.5	29.7	32.4
Cycle Q Clear(g_c), s	0.0	11.2	13.8	16.6	7.6	0.0				5.5	29.7	32.4
Prop In Lane	0.00		1.00	0.46		0.00				1.00		0.58
Lane Grp Cap(c), veh/h	0	402	340	222	348	0				1145	2189	1089
V/C Ratio(X)	0.00	0.62	0.75	0.57	0.44	0.00				0.23	0.74	0.77
Avail Cap(c_a), veh/h	0	612	517	361	529	0				1166	2228	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.6	33.6	35.3	31.2	0.0				6.8	11.1	11.6
Incr Delay (d2), s/veh	0.0	0.6	1.2	1.7	0.7	0.0				0.2	1.5	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
%ile BackOfQ(50%),veh/ln	0.0	5.1	5.4	2.8	3.0	0.0				1.9	10.1	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.2	34.9	37.0	31.9	0.0				7.0	12.7	15.5
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		505			280						2719	
Approach Delay, s/veh		34.0			34.2						13.0	
Approach LOS		C			C						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				26.4		65.3		26.4				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				15.8		34.4		18.6				
Green Ext Time (p_c), s				1.3		24.5		1.1				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Existing Conditions with Project

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖		↖	↑↑				
Traffic Volume (veh/h)	245	52	172	0	23	11	246	1250	29	0	0	0
Future Volume (veh/h)	245	52	172	0	23	11	246	1250	29	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	258	55	181	0	24	12	259	1316	31			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	466	72	1245	0	353	176	869	1731	41			
Arrive On Green	0.30	0.30	0.30	0.00	0.30	0.30	0.49	0.49	0.49			
Sat Flow, veh/h	1129	241	1572	0	1176	588	1781	3547	84			
Grp Volume(v), veh/h	313	0	181	0	0	36	259	659	688			
Grp Sat Flow(s),veh/h/ln	1369	0	1572	0	0	1764	1781	1777	1854			
Q Serve(g_s), s	10.2	0.0	0.0	0.0	0.0	0.7	4.5	15.5	15.5			
Cycle Q Clear(g_c), s	10.9	0.0	0.0	0.0	0.0	0.7	4.5	15.5	15.5			
Prop In Lane	0.82		1.00	0.00		0.33	1.00		0.05			
Lane Grp Cap(c), veh/h	538	0	1245	0	0	529	869	867	905			
V/C Ratio(X)	0.58	0.00	0.15	0.00	0.00	0.07	0.30	0.76	0.76			
Avail Cap(c_a), veh/h	948	0	1692	0	0	1031	1023	1021	1065			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	16.8	0.0	1.3	0.0	0.0	12.9	7.9	10.7	10.7			
Incr Delay (d2), s/veh	1.0	0.0	0.1	0.0	0.0	0.0	0.2	2.8	2.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.2	0.0	2.6	0.0	0.0	0.3	1.4	5.3	5.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	1.4	0.0	0.0	12.9	8.1	13.5	13.4			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h	494			36			1606					
Approach Delay, s/veh	11.8			12.9			12.6					
Approach LOS	B			B			B					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	29.6			21.8			21.8					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+l1), s	17.5			12.9			2.7					
Green Ext Time (p_c), s	7.5			2.4			0.1					

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	46	63	58	1	3	32	631	74	68	1355	20
Future Volume (veh/h)	29	46	63	58	1	3	32	631	74	68	1355	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	53	73	67	1	3	37	734	86	79	1576	23
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	432	162	223	324	93	280	54	2480	766	165	2608	38
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.03	0.49	0.49	0.05	0.50	0.50
Sat Flow, veh/h	1398	708	975	1255	409	1226	1781	5106	1576	3456	5184	76
Grp Volume(v), veh/h	34	0	126	67	0	4	37	734	86	79	1035	564
Grp Sat Flow(s),veh/h/ln	1398	0	1683	1255	0	1634	1781	1702	1576	1728	1702	1856
Q Serve(g_s), s	1.2	0.0	3.9	2.9	0.0	0.1	1.3	5.4	1.9	1.4	13.6	13.6
Cycle Q Clear(g_c), s	1.3	0.0	3.9	6.9	0.0	0.1	1.3	5.4	1.9	1.4	13.6	13.6
Prop In Lane	1.00		0.58	1.00		0.75	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	432	0	385	324	0	374	54	2480	766	165	1713	934
V/C Ratio(X)	0.08	0.00	0.33	0.21	0.00	0.01	0.69	0.30	0.11	0.48	0.60	0.60
Avail Cap(c_a), veh/h	1005	0	1074	838	0	1044	853	4890	1510	1655	3260	1777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	20.1	23.0	0.0	18.7	30.1	9.7	8.8	29.1	11.1	11.1
Incr Delay (d2), s/veh	0.0	0.0	0.2	0.1	0.0	0.0	5.6	0.1	0.1	0.8	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.5	0.8	0.0	0.0	0.6	1.7	0.6	0.6	4.2	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	0.0	20.3	23.1	0.0	18.7	35.7	9.8	8.9	29.9	11.5	11.7
LnGrp LOS	B	A	C	C	A	B	D	A	A	C	B	B
Approach Vol, veh/h	160		71			857			1678			
Approach Delay, s/veh	20.1		22.9			10.8			12.4			
Approach LOS	C		C			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.4	36.1	19.1		6.3	37.2	19.1					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	13.4	7.4	5.9		3.3	15.6	8.9					
Green Ext Time (p_c), s	0.1	11.4	0.6		0.0	15.9	0.1					

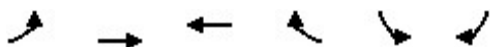
Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↱			↑↑↑↑			↱			↱		
Traffic Vol, veh/h	0	3648	12	0	1416	0	0	0	1	0	0	0
Future Vol, veh/h	0	3648	12	0	1416	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	3722	12	0	1445	0	0	0	1	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1868	-	-	723
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	53	0	0	316
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	53	-	-	316
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			74.3			0		
HCM LOS							F			A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1							
Capacity (veh/h)	53	-	-	-	-							
HCM Lane V/C Ratio	0.019	-	-	-	-							
HCM Control Delay (s)	74.3	-	-	-	0							
HCM Lane LOS	F	-	-	-	A							
HCM 95th %tile Q(veh)	0.1	-	-	-	-							



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1413	2276	1865	128	81	42
Future Volume (veh/h)	1413	2276	1865	128	81	42
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1472	2371	1943	0	84	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1130	4224	2408		113	101
Arrive On Green	0.33	0.85	0.48	0.00	0.06	0.06
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1472	2371	1943	0	84	44
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	38.6	16.3	39.0	0.0	5.5	3.2
Cycle Q Clear(g_c), s	38.6	16.3	39.0	0.0	5.5	3.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1130	4224	2408		113	101
V/C Ratio(X)	1.30	0.56	0.81		0.74	0.44
Avail Cap(c_a), veh/h	1130	4224	2408		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.65	0.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	2.6	25.8	0.0	54.3	53.2
Incr Delay (d2), s/veh	142.5	0.5	2.0	0.0	3.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.9	2.4	14.7	0.0	2.5	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	182.2	3.2	27.8	0.0	57.8	54.3
LnGrp LOS	F	A	C		E	D
Approach Vol, veh/h		3843	1943	A	128	
Approach Delay, s/veh		71.7	27.8		56.6	
Approach LOS		E	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.3		12.7	43.0	62.3
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	38.6	* 35
Max Q Clear Time (g_c+I1), s		18.3		7.5	40.6	41.0
Green Ext Time (p_c), s		56.8		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			57.0			
HCM 6th LOS			E			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑		↰	↑↑		↰	↑↑↑		↰	↑↑↑	↰
Traffic Volume (veh/h)	300	1188	78	81	735	110	85	305	118	201	747	580
Future Volume (veh/h)	300	1188	78	81	735	110	85	305	118	201	747	580
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	349	1381	91	94	855	128	99	355	137	234	869	674
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	1584	104	205	1181	177	121	491	179	244	1034	647
Arrive On Green	0.21	0.47	0.47	0.04	0.13	0.13	0.07	0.13	0.13	0.14	0.20	0.20
Sat Flow, veh/h	1781	3381	222	1781	3099	464	1781	3677	1339	1781	5106	1565
Grp Volume(v), veh/h	349	724	748	94	490	493	99	327	165	234	869	674
Grp Sat Flow(s),veh/h/ln	1781	1777	1827	1781	1777	1786	1781	1702	1611	1781	1702	1565
Q Serve(g_s), s	27.0	51.1	51.6	7.2	37.1	37.1	7.7	12.9	13.8	18.3	22.9	28.3
Cycle Q Clear(g_c), s	27.0	51.1	51.6	7.2	37.1	37.1	7.7	12.9	13.8	18.3	22.9	28.3
Prop In Lane	1.00		0.12	1.00		0.26	1.00		0.83	1.00		1.00
Lane Grp Cap(c), veh/h	371	833	856	205	677	681	121	454	215	244	1034	647
V/C Ratio(X)	0.94	0.87	0.87	0.46	0.72	0.72	0.82	0.72	0.77	0.96	0.84	1.04
Avail Cap(c_a), veh/h	382	833	856	205	677	681	244	625	296	244	1034	647
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	0.97	0.97	0.97	0.78	0.78	0.78
Uniform Delay (d), s/veh	54.6	33.3	33.5	63.1	54.1	54.1	64.4	58.1	58.6	60.0	53.7	41.3
Incr Delay (d2), s/veh	31.0	11.9	12.1	6.7	6.2	6.1	4.8	2.7	8.2	39.3	5.2	42.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lt	5.1	23.9	24.8	3.8	18.9	19.0	3.6	5.7	6.1	10.9	10.2	29.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.6	45.3	45.6	69.8	60.3	60.2	69.2	60.8	66.7	99.3	58.9	84.1
LnGrp LOS	F	D	D	E	E	E	E	E	E	F	E	F
Approach Vol, veh/h	1821				1077		591				1777	
Approach Delay, s/veh	53.1				61.1		63.9				73.7	
Approach LOS	D				E		E				E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.6	23.7	21.9	70.8	13.9	33.3	33.5	59.2				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+20), s	20.3	15.8	9.2	53.6	9.7	30.3	29.0	39.1				
Green Ext Time (p_c), s	0.0	2.4	0.0	8.7	0.1	0.0	0.1	2.9				

Intersection Summary

HCM 6th Ctrl Delay	62.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	1405	96	43	203	0	0	0	0	334	571	715
Future Volume (veh/h)	0	1405	96	43	203	0	0	0	0	334	571	715
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1495	102	46	216	0				355	607	761
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1678	114	71	2021	0				616	1293	543
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3469	229	1781	3647	0				1781	3741	1570
Grp Volume(v), veh/h	0	783	814	46	216	0				355	607	761
Grp Sat Flow(s),veh/h/ln	0	1777	1828	1781	1777	0				1781	1870	1570
Q Serve(g_s), s	0.0	60.4	61.0	3.6	3.9	0.0				22.8	17.7	48.4
Cycle Q Clear(g_c), s	0.0	60.4	61.0	3.6	3.9	0.0				22.8	17.7	48.4
Prop In Lane	0.00		0.13	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	883	909	71	2021	0				616	1293	543
V/C Ratio(X)	0.00	0.89	0.90	0.65	0.11	0.00				0.58	0.47	1.40
Avail Cap(c_a), veh/h	0	883	909	313	2021	0				616	1293	543
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.36	0.36	0.80	0.80	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	54.7	54.9	66.2	13.9	0.0				37.4	35.8	45.8
Incr Delay (d2), s/veh	0.0	5.2	5.5	2.9	0.1	0.0				3.9	1.2	191.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	30.1	31.3	1.7	1.6	0.0				10.8	8.5	47.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	59.9	60.4	69.1	14.0	0.0				41.3	37.0	237.7
LnGrp LOS	A	E	E	E	B	A				D	D	F
Approach Vol, veh/h		1597			262						1723	
Approach Delay, s/veh		60.1			23.6						126.5	
Approach LOS		E			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	0.0	76.2		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.6	63.0		50.4		5.9						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	89.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Existing Conditions with Project

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↱			
Traffic Volume (veh/h)	814	913	0	0	215	120	39	177	108	0	0	0
Future Volume (veh/h)	814	913	0	0	215	120	39	177	108	0	0	0
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		0.91			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	875	982	0	0	231	129	42	190	116			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1622	1402	0	0	489	263	80	383	185			
Arrive On Green	0.47	0.75	0.00	0.00	0.22	0.22	0.13	0.13	0.13			
Sat Flow, veh/h	3456	1870	0	0	2324	1200	624	2992	1448			
Grp Volume(v), veh/h	875	982	0	0	182	178	124	108	116			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1654	1839	1777	1448			
Q Serve(g_s), s	14.4	22.1	0.0	0.0	7.1	7.5	5.0	4.5	6.1			
Cycle Q Clear(g_c), s	14.4	22.1	0.0	0.0	7.1	7.5	5.0	4.5	6.1			
Prop In Lane	1.00		0.00	0.00		0.73	0.34		1.00			
Lane Grp Cap(c), veh/h	1622	1402	0	0	389	363	235	227	185			
V/C Ratio(X)	0.54	0.70	0.00	0.00	0.47	0.49	0.53	0.48	0.63			
Avail Cap(c_a), veh/h	1622	1402	0	0	580	540	393	380	309			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.31	0.31	0.00	0.00	1.00	1.00	0.94	0.94	0.94			
Uniform Delay (d), s/veh	15.1	5.3	0.0	0.0	27.2	27.3	32.6	32.4	33.1			
Incr Delay (d2), s/veh	0.1	0.9	0.0	0.0	0.3	0.4	0.6	0.5	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.0	5.0	0.0	0.0	2.9	2.8	2.3	2.0	2.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	6.2	0.0	0.0	27.5	27.7	33.3	32.9	34.3			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	1857				360				348			
Approach Delay, s/veh	10.4				27.6				33.5			
Approach LOS	B				C				C			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	64.9				42.4		22.4		15.1			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	53.1				22.1		* 26		17.1			
Max Q Clear Time (g_c+I1), s	24.1				16.4		9.5		8.1			
Green Ext Time (p_c), s	5.1				1.8		1.1		0.8			

Intersection Summary

HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	↑↑↑		←	↑↑↑
Traffic Volume (veh/h)	157	1316	655	0	0	2440
Future Volume (veh/h)	157	1316	655	0	0	2440
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	164	0	682	0	0	2542
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	195		2044	0	626	5034
Arrive On Green	0.11	0.00	0.41	0.00	0.00	0.80
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	164	0	682	0	0	2542
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	9.9	0.0	10.3	0.0	0.0	14.9
Cycle Q Clear(g_c), s	9.9	0.0	10.3	0.0	0.0	14.9
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	195		2044	0	626	5034
V/C Ratio(X)	0.84		0.33	0.00	0.00	0.51
Avail Cap(c_a), veh/h	487		2044	0	730	5034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.00	0.81	0.00	0.00	0.79
Uniform Delay (d), s/veh	48.0	0.0	22.2	0.0	0.0	3.6
Incr Delay (d2), s/veh	2.9	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
%ile BackOfQ(50%),veh/ln	4.5	0.0	3.8	0.0	0.0	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.9	0.0	22.3	0.0	0.0	3.9
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	164	A	682			2542
Approach Delay, s/veh	50.9		22.3			3.9
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	43.1	50.0			93.1	16.9
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.1	20.6			45.1	30.1
Max Q Clear Time (g_c+I10), s	10.0	12.3			16.9	11.9
Green Ext Time (p_c), s	0.0	3.5			24.9	0.2

Intersection Summary

HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	144	1336	97	129	411	0	0	841	51
Future Volume (veh/h)	0	0	0	144	1336	97	129	411	0	0	841	51
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				152	1406	102	136	433	0	0	885	54
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				265	2611	195	155	1629	0	0	852	52
Arrive On Green				0.19	0.19	0.19	0.17	0.64	0.00	0.00	0.17	0.17
Sat Flow, veh/h				461	4552	340	1781	5274	0	0	5077	299
Grp Volume(v), veh/h				609	510	541	136	433	0	0	613	326
Grp Sat Flow(s),veh/h/ln				1847	1702	1804	1781	1702	0	0	1702	1803
Q Serve(g_s), s				33.0	29.7	29.7	8.2	4.1	0.0	0.0	19.1	19.1
Cycle Q Clear(g_c), s				33.0	29.7	29.7	8.2	4.1	0.0	0.0	19.1	19.1
Prop In Lane				0.25		0.19	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				1060	976	1035	155	1629	0	0	591	313
V/C Ratio(X)				0.57	0.52	0.52	0.87	0.27	0.00	0.00	1.04	1.04
Avail Cap(c_a), veh/h				1060	976	1035	155	1629	0	0	591	313
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.83	0.83	0.83	0.64	0.64	0.00	0.00	0.52	0.52
Uniform Delay (d), s/veh				32.4	31.0	31.0	44.8	14.3	0.0	0.0	45.5	45.5
Incr Delay (d2), s/veh				1.9	1.7	1.6	27.0	0.1	0.0	0.0	36.7	48.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				16.8	13.9	14.8	4.4	1.4	0.0	0.0	10.9	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.3	32.7	32.6	71.8	14.3	0.0	0.0	82.2	93.4
LnGrp LOS				C	C	C	E	B	A	A	F	F
Approach Vol, veh/h					1660			569			939	
Approach Delay, s/veh					33.2			28.1			86.1	
Approach LOS					C			C			F	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.5	25.5		69.0	41.0				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+I1), s				10.2	21.1		35.0	6.1				
Green Ext Time (p_c), s				0.0	0.0		10.9	3.3				
Intersection Summary												
HCM 6th Ctrl Delay											48.0	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	254	1529	0	0	0	0	0	451	61
Future Volume (veh/h)	0	0	0	254	1529	0	0	0	0	0	451	61
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				265	1593	0				0	470	64
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				499	3221	0				0	899	120
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				703	4705	0				0	4704	604
Grp Volume(v), veh/h				692	1166	0				0	350	184
Grp Sat Flow(s),veh/h/ln				1835	1702	0				0	1702	1736
Q Serve(g_s), s				36.3	32.5	0.0				0.0	10.1	10.4
Cycle Q Clear(g_c), s				36.3	32.5	0.0				0.0	10.1	10.4
Prop In Lane				0.38		0.00				0.00		0.35
Lane Grp Cap(c), veh/h				1303	2417	0				0	675	344
V/C Ratio(X)				0.53	0.48	0.00				0.00	0.52	0.53
Avail Cap(c_a), veh/h				1303	2417	0				0	675	344
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				26.1	24.7	0.0				0.0	39.4	39.5
Incr Delay (d2), s/veh				1.6	0.7	0.0				0.0	2.8	5.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				18.3	15.0	0.0				0.0	4.5	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.6	25.4	0.0				0.0	42.3	45.4
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					1858						534	
Approach Delay, s/veh					26.2						43.3	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.7		83.3						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.8		78.1						
Max Q Clear Time (g_c+I1), s				12.4		38.3						
Green Ext Time (p_c), s				0.7		3.0						
Intersection Summary												
HCM 6th Ctrl Delay				30.0								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1684	92	85	181	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1684	92	85	181	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1736	95	88	187	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3473	190	223	512	0			
Arrive On Green				0.00	0.23	0.23	0.07	0.07	0.00			
Sat Flow, veh/h				0	5123	271	1091	2595	0			
Grp Volume(v), veh/h				0	1192	639	147	128	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1822	1816	1777	0			
Q Serve(g_s), s				0.0	33.5	33.5	8.5	7.6	0.0			
Cycle Q Clear(g_c), s				0.0	33.5	33.5	8.5	7.6	0.0			
Prop In Lane				0.00		0.15	0.60		0.00			
Lane Grp Cap(c), veh/h				0	2386	1277	371	363	0			
V/C Ratio(X)				0.00	0.50	0.50	0.39	0.35	0.00			
Avail Cap(c_a), veh/h				0	2386	1277	371	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	25.5	25.5	44.8	44.3	0.0			
Incr Delay (d2), s/veh				0.0	0.8	1.4	3.1	2.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	15.4	16.8	4.4	3.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	26.3	26.9	47.9	47.0	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					1831			275				
Approach Delay, s/veh					26.5			47.5				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						35.5		10.5				
Green Ext Time (p_c), s						20.4		1.2				
Intersection Summary												
HCM 6th Ctrl Delay											29.2	
HCM 6th LOS											C	

SDCRAA ADP EIR
22: Columbia St & Hawthorn St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	204	1730	0	0	0	0	0	497	52
Future Volume (veh/h)	0	0	0	204	1730	0	0	0	0	0	497	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				217	1840	0				0	529	55
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				365	3314	0				0	733	320
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				521	4896	0				0	3647	1553
Grp Volume(v), veh/h				769	1288	0				0	529	55
Grp Sat Flow(s),veh/h/ln				1844	1702	0				0	1777	1553
Q Serve(g_s), s				40.9	36.6	0.0				0.0	15.3	3.2
Cycle Q Clear(g_c), s				40.9	36.6	0.0				0.0	15.3	3.2
Prop In Lane				0.28		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1293	2386	0				0	733	320
V/C Ratio(X)				0.59	0.54	0.00				0.00	0.72	0.17
Avail Cap(c_a), veh/h				1293	2386	0				0	733	320
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.4	26.7	0.0				0.0	40.7	35.9
Incr Delay (d2), s/veh				2.0	0.9	0.0				0.0	6.1	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.8	16.9	0.0				0.0	7.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.4	27.6	0.0				0.0	46.8	37.1
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2057						584	
Approach Delay, s/veh					28.6						45.8	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				17.3		42.9						
Green Ext Time (p_c), s				1.8		21.5						
Intersection Summary												
HCM 6th Ctrl Delay											32.4	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1933	80	23	71	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1933	80	23	71	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2035	84	24	75	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3663	151	147	492	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5198	207	828	2871	0			
Grp Volume(v), veh/h				0	1375	744	53	46	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1833	1829	1777	0			
Q Serve(g_s), s				0.0	20.3	20.4	2.7	2.4	0.0			
Cycle Q Clear(g_c), s				0.0	20.3	20.4	2.7	2.4	0.0			
Prop In Lane				0.00		0.11	0.45		0.00			
Lane Grp Cap(c), veh/h				0	2479	1335	324	315	0			
V/C Ratio(X)				0.00	0.55	0.56	0.16	0.15	0.00			
Avail Cap(c_a), veh/h				0	2479	1335	324	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	6.8	6.8	38.3	38.2	0.0			
Incr Delay (d2), s/veh				0.0	0.9	1.7	1.1	1.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.6	7.4	1.3	1.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	7.7	8.5	39.4	39.2	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					2119			99				
Approach Delay, s/veh					8.0			39.3				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						22.4		4.7				
Green Ext Time (p_c), s						30.0		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				9.4								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↑
Traffic Vol, veh/h	0	0	0	0	154	568	3	103	0	0	0	25
Future Vol, veh/h	0	0	0	0	154	568	3	103	0	0	0	25
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	160	592	3	107	0	0	0	26
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	80	752	-	-	-	376
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	80	752	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	899	338	0	0	0	622
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	919	416	0	0	0	-
Platoon blocked, %				-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver				-	-	-	861	338	-	-	-	622
Mov Cap-2 Maneuver				-	-	-	861	338	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	881	416	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		20.5		11				
HCM LOS						C		B				
Minor Lane/Major Mvmt				NBLn1	WBT	WBR	SBLn1					
Capacity (veh/h)				338	-	-	622					
HCM Lane V/C Ratio				0.317	-	-	0.042					
HCM Control Delay (s)				20.5	-	-	11					
HCM Lane LOS				C	-	-	B					
HCM 95th %tile Q(veh)				1.3	-	-	0.1					

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Existing Conditions with Project
Timing Plan: PM PEAK

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	650	129	1420	1189	0
Future Volume (veh/h)	0	0	0	0	0	0	0	650	129	1420	1189	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.84	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	663	132	1449	1213	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	977	261	3600	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.20	0.20	0.48	0.64	0.00
Sat Flow, veh/h		0					0	5149	1330	5023	1826	0
Grp Volume(v), veh/h		0.0					0	663	132	1449	1213	0
Grp Sat Flow(s),veh/h/ln							0	1662	1330	1674	1826	0
Q Serve(g_s), s							0.0	13.6	9.7	20.4	47.6	0.0
Cycle Q Clear(g_c), s							0.0	13.6	9.7	20.4	47.6	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	977	261	3600	1740	0
V/C Ratio(X)							0.00	0.68	0.51	0.40	0.70	0.00
Avail Cap(c_a), veh/h							0	1205	322	3600	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh							0.0	41.0	39.5	13.4	9.6	0.0
Incr Delay (d2), s/veh							0.0	2.3	3.9	0.1	1.9	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	5.6	3.4	8.1	15.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	43.3	43.4	13.5	11.5	0.0
LnGrp LOS							A	D	D	B	B	A
Approach Vol, veh/h								795			2662	
Approach Delay, s/veh								43.4			12.6	
Approach LOS								D			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	83.2	26.8					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	22.4	15.6					49.6					
Green Ext Time (p_c), s	5.8	6.0					0.0					
Intersection Summary												
HCM 6th Ctrl Delay			19.6									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	44	1500	60	0	0	0	0	452	245	176	853	0
Future Volume (veh/h)	44	1500	60	0	0	0	0	452	245	176	853	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	45	1531	61				0	461	250	180	870	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	76	2761	848				0	719	312	208	1878	0
Arrive On Green	0.18	0.18	0.18				0.00	0.21	0.21	0.23	0.74	0.00
Sat Flow, veh/h	142	5126	1574				0	3572	1478	1781	5274	0
Grp Volume(v), veh/h	592	984	61				0	461	250	180	870	0
Grp Sat Flow(s),veh/h/ln	1863	1702	1574				0	1702	1478	1781	1702	0
Q Serve(g_s), s	32.1	28.9	3.6				0.0	13.6	17.7	10.7	7.5	0.0
Cycle Q Clear(g_c), s	32.1	28.9	3.6				0.0	13.6	17.7	10.7	7.5	0.0
Prop In Lane	0.08		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1004	1834	848				0	719	312	208	1878	0
V/C Ratio(X)	0.59	0.54	0.07				0.00	0.64	0.80	0.87	0.46	0.00
Avail Cap(c_a), veh/h	1004	1834	848				0	916	398	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.57	0.57	0.57				0.00	1.00	1.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	34.1	32.7	22.3				0.0	39.6	41.2	41.4	10.2	0.0
Incr Delay (d2), s/veh	1.5	0.6	0.1				0.0	1.1	9.2	0.9	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 BackOfQ(50%),veh/ft	6.4	13.3	1.3				0.0	5.7	7.1	4.1	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	33.4	22.4				0.0	40.7	50.4	42.2	10.2	0.0
LnGrp LOS	D	C	C				A	D	D	D	B	A
Approach Vol, veh/h	1637						711			1050		
Approach Delay, s/veh	33.8						44.1			15.7		
Approach LOS	C						D			B		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	64.2			45.8			17.2		28.6			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	45.6			54.1			20.1		* 30			
Max Q Clear Time (g_c+I1), s	34.1			9.5			12.7		19.7			
Green Ext Time (p_c), s	9.3			5.4			0.1		3.6			

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1877	49	0	0	0	0	0	0	214	485	0
Future Volume (veh/h)	0	1877	49	0	0	0	0	0	0	214	485	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2063	54							235	533	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2980	78							489	1218	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5281	134							1489	3879	0
Grp Volume(v), veh/h	0	1372	745							283	485	0
Grp Sat Flow(s),veh/h/ln	0	1702	1843							1796	1702	0
Q Serve(g_s), s	0.0	41.3	41.4							16.3	14.7	0.0
Cycle Q Clear(g_c), s	0.0	41.3	41.4							16.3	14.7	0.0
Prop In Lane	0.00		0.07							0.83		0.00
Lane Grp Cap(c), veh/h	0	1984	1074							589	1117	0
V/C Ratio(X)	0.00	0.69	0.69							0.48	0.43	0.00
Avail Cap(c_a), veh/h	0	1984	1074							589	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	35.2	35.3							40.2	39.5	0.0
Incr Delay (d2), s/veh	0.0	2.0	3.7							2.8	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.3	21.5							8.3	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	37.2	39.0							43.0	40.7	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2117									768	
Approach Delay, s/veh		37.8									41.6	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		69.0	41.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		64.1	36.1									
Max Q Clear Time (g_c+l1), s		43.4	18.3									
Green Ext Time (p_c), s		7.0	2.0									
Intersection Summary												
HCM 6th Ctrl Delay			38.8									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	74	2018	0	0	0	0	0	204	182	0	0	0
Future Volume (veh/h)	74	2018	0	0	0	0	0	204	182	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00	1.00					1.00	0.96				
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00				
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	81	2218	0				0	224	200			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	100	2920	0				0	604	508			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	175	5259	0				0	1885	1505			
Grp Volume(v), veh/h	864	1435	0				0	222	202			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1520			
Q Serve(g_s), s	48.9	43.7	0.0				0.0	10.4	11.2			
Cycle Q Clear(g_c), s	48.9	43.7	0.0				0.0	10.4	11.2			
Prop In Lane	0.09	0.00					0.00	0.99				
Lane Grp Cap(c), veh/h	1068	1953	0				0	599	513			
V/C Ratio(X)	0.81	0.73	0.00				0.00	0.37	0.39			
Avail Cap(c_a), veh/h	1068	1953	0				0	599	513			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	38.8	36.7	0.0				0.0	27.6	27.9			
Incr Delay (d2), s/veh	6.6	2.5	0.0				0.0	1.8	2.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.3	20.5	0.0				0.0	4.8	4.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.4	39.2	0.0				0.0	29.4	30.1			
LnGrp LOS	D	D	A				A	C	C			
Approach Vol, veh/h												
		2299					424					
Approach Delay, s/veh												
		41.6					29.7					
Approach LOS												
		D					C					
Timer - Assigned Phs												
		2					8					
Phs Duration (G+Y+Rc), s												
		68.0					42.0					
Change Period (Y+Rc), s												
		4.9					4.9					
Max Green Setting (Gmax), s												
		63.1					37.1					
Max Q Clear Time (g_c+l1), s												
		50.9					13.2					
Green Ext Time (p_c), s												
		10.5					2.9					
Intersection Summary												
HCM 6th Ctrl Delay			39.7									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2159	54	0	0	0	0	0	0	291	396	0
Future Volume (veh/h)	0	2159	54	0	0	0	0	0	0	291	396	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2347	59							316	430	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2518	63							747	1489	0
Arrive On Green	0.00	0.16	0.16							0.14	0.14	0.00
Sat Flow, veh/h	0	5289	128							1781	3647	0
Grp Volume(v), veh/h	0	1557	849							316	430	0
Grp Sat Flow(s),veh/h/ln	0	1702	1845							1781	1777	0
Q Serve(g_s), s	0.0	49.6	50.0							17.9	11.9	0.0
Cycle Q Clear(g_c), s	0.0	49.6	50.0							17.9	11.9	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	1674	907							747	1489	0
V/C Ratio(X)	0.00	0.93	0.94							0.42	0.29	0.00
Avail Cap(c_a), veh/h	0	1674	907							747	1489	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	44.2	44.4							35.2	32.7	0.0
Incr Delay (d2), s/veh	0.0	10.7	17.8							1.8	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.1	29.2							8.9	5.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	54.9	62.2							37.0	33.2	0.0
LnGrp LOS	A	D	E							D	C	A
Approach Vol, veh/h		2406									746	
Approach Delay, s/veh		57.5									34.8	
Approach LOS		E									C	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		59.0	51.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		54.1	46.1									
Max Q Clear Time (g_c+l1), s		52.0	19.9									
Green Ext Time (p_c), s		2.0	4.2									
Intersection Summary												
HCM 6th Ctrl Delay			52.1									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	19	2429	0	0	0	0	0	67	92	0	0	0
Future Volume (veh/h)	19	2429	0	0	0	0	0	67	92	0	0	0
Initial Q (Qb), veh	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				
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	22	2858	0				0	79	108			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	27	3717	0				0	357	318			
Arrive On Green	0.23	0.23	0.00				0.00	0.20	0.20			
Sat Flow, veh/h	38	5403	0				0	1870	1585			
Grp Volume(v), veh/h	1084	1796	0				0	79	108			
Grp Sat Flow(s),veh/h/ln	1868	1702	0				0	1777	1585			
Q Serve(g_s), s	60.5	53.8	0.0				0.0	4.1	6.4			
Cycle Q Clear(g_c), s	60.5	53.8	0.0				0.0	4.1	6.4			
Prop In Lane	0.02	0.00					0.00	1.00				
Lane Grp Cap(c), veh/h	1327	2417	0				0	357	318			
V/C Ratio(X)	0.82	0.74	0.00				0.00	0.22	0.34			
Avail Cap(c_a), veh/h	1327	2417	0				0	357	318			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	35.4	32.8	0.0				0.0	36.8	37.7			
Incr Delay (d2), s/veh	5.7	2.1	0.0				0.0	1.4	2.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.23	25.2	0.0				0.0	1.9	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	34.9	0.0				0.0	38.2	40.6			
LnGrp LOS	D	C	A				A	D	D			
Approach Vol, veh/h	2880					187						
Approach Delay, s/veh	37.2					39.6						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	83.0					27.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	78.1					22.1						
Max Q Clear Time (g_c+I1), s	62.5					8.4						
Green Ext Time (p_c), s	14.6					0.9						
Intersection Summary												
HCM 6th Ctrl Delay			37.4									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	1087	864	43	136	179
Future Volume (veh/h)	21	1087	864	43	136	179
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	23	1182	939	47	148	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	32	3825	3462	173	491	225
Arrive On Green	0.02	0.77	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	5027	243	3456	1585
Grp Volume(v), veh/h	23	1182	641	345	148	195
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1782	1728	1585
Q Serve(g_s), s	1.5	8.5	0.0	0.0	4.5	14.2
Cycle Q Clear(g_c), s	1.5	8.5	0.0	0.0	4.5	14.2
Prop In Lane	1.00			0.14	1.00	1.00
Lane Grp Cap(c), veh/h	32	3825	2366	1269	491	225
V/C Ratio(X)	0.72	0.31	0.27	0.27	0.30	0.87
Avail Cap(c_a), veh/h	319	3825	2366	1269	884	406
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	57.6	4.2	0.0	0.0	45.4	49.5
Incr Delay (d2), s/veh	9.9	0.2	0.3	0.5	0.1	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	2.2	0.1	0.2	2.0	12.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.5	4.4	0.3	0.5	45.5	53.4
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1205	986		343	
Approach Delay, s/veh		5.6	0.4		50.0	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.3		21.7	6.5	89.8
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		10.5		16.2	3.5	2.0
Green Ext Time (p_c), s		30.5		0.6	0.0	18.9
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	97	1106	16	19	869	11	0	13	26	93	0	12
Future Volume (veh/h)	97	1106	16	19	869	11	0	13	26	93	0	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	1271	18	22	999	0	0	15	30	107	0	14
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	728	3551	50	60	1567		61	19	38	214	0	98
Arrive On Green	0.82	1.00	1.00	0.03	0.31	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5064	72	1781	4985	1585	1781	553	1106	3456	0	1577
Grp Volume(v), veh/h	111	834	455	22	999	0	0	0	45	107	0	14
Grp Sat Flow(s), veh/h/ln	1781	1662	1813	1781	1662	1585	1781	0	1660	1728	0	1577
Q Serve(g_s), s	1.5	0.0	0.0	1.4	20.3	0.0	0.0	0.0	3.2	3.5	0.0	1.0
Cycle Q Clear(g_c), s	1.5	0.0	0.0	1.4	20.3	0.0	0.0	0.0	3.2	3.5	0.0	1.0
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	728	2330	1271	60	1567		61	0	57	214	0	98
V/C Ratio(X)	0.15	0.36	0.36	0.36	0.64		0.00	0.00	0.79	0.50	0.00	0.14
Avail Cap(c_a), veh/h	728	2330	1271	168	1567		251	0	233	999	0	456
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	0.0	0.0	55.8	34.7	0.0	0.0	0.0	56.6	53.6	0.0	52.4
Incr Delay (d2), s/veh	0.0	0.4	0.8	1.4	2.0	0.0	0.0	0.0	8.8	0.7	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.1	0.3	0.6	8.2	0.0	0.0	0.0	1.5	1.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.5	0.4	0.8	57.1	36.7	0.0	0.0	0.0	65.3	54.2	0.0	52.6
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1400			1021			45			121		
Approach Delay, s/veh	1.0			37.1			65.3			54.1		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.4			12.2	53.9	42.9		8.9				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+13), s	2.0			5.5	3.5	22.3		5.2				
Green Ext Time (p_c), s	0.0	12.8		0.2	0.1	8.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay 18.9

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
33: Harbor Island Dr & N Harbor Dr

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	871	126	274	569	13	139	37	323	98	55	271
Future Volume (veh/h)	211	871	126	274	569	13	139	37	323	98	55	271
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	937	135	295	612	14	149	40	0	105	59	291
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	462	2469	883	358	2109	48	214	116		303	319	261
Arrive On Green	0.26	0.50	0.50	0.10	0.33	0.33	0.06	0.06	0.00	0.17	0.17	0.17
Sat Flow, veh/h	1781	4985	1584	3456	6363	145	3456	1870	1585	1781	1870	1535
Grp Volume(v), veh/h	227	937	135	295	452	174	149	40	0	105	59	291
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	1797	1728	1870	1585	1781	1870	1535
Q Serve(g_s), s	12.8	13.8	4.9	9.9	8.4	8.4	5.0	2.4	0.0	6.1	3.2	20.1
Cycle Q Clear(g_c), s	12.8	13.8	4.9	9.9	8.4	8.4	5.0	2.4	0.0	6.1	3.2	20.1
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	462	2469	883	358	1561	596	214	116		303	319	261
V/C Ratio(X)	0.49	0.38	0.15	0.82	0.29	0.29	0.70	0.35		0.35	0.19	1.11
Avail Cap(c_a), veh/h	462	2469	883	618	1561	596	691	374		303	319	261
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	18.5	12.6	51.8	29.2	29.2	54.3	53.1	0.0	43.2	41.9	49.0
Incr Delay (d2), s/veh	0.3	0.4	0.4	1.8	0.5	1.2	1.5	0.7	0.0	0.7	0.3	89.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	5.1	2.0	4.2	3.1	3.7	2.2	1.1	0.0	2.7	1.5	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	18.9	13.0	53.6	29.6	30.4	55.8	53.7	0.0	43.8	42.2	138.4
LnGrp LOS	D	B	B	D	C	C	E	D		D	D	F
Approach Vol, veh/h	1299			921			189			A	455	
Approach Delay, s/veh	21.6			37.5			55.3			104.1		
Approach LOS	C			D			E			F		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	64.2		25.0		36.3	44.5	12.2					
Change Period (Y+Rc), s	4.4	5.7	4.9		5.7	* 5.4	4.9					
Max Green Setting (Gmax), s	21.0	13.6	20.1		15.6	* 39	23.6					
Max Q Clear Time (g_c+I1), s	11.0	15.8	22.1		14.8	10.4	7.0					
Green Ext Time (p_c), s	0.4	0.0	0.0		0.0	9.4	0.3					

Intersection Summary

HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	0	21	1	0	19	10	341	3	19	359	77
Future Volume (veh/h)	103	0	21	1	0	19	10	341	3	19	359	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	131	0	0	0	0	21	11	363	3	20	382	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	297	156	0	0	40	64	204	1123	9	207	908	193
Arrive On Green	0.08	0.00	0.00	0.00	0.00	0.02	0.11	0.31	0.31	0.12	0.31	0.31
Sat Flow, veh/h	3563	1870	0	0	1870	3017	1781	3611	30	1781	2904	616
Grp Volume(v), veh/h	131	0	0	0	0	21	11	178	188	20	232	232
Grp Sat Flow(s),veh/h/ln	1781	1870	0	0	1870	1509	1781	1777	1864	1781	1777	1744
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	0.2	0.2	2.6	2.6	0.3	3.5	3.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	0.0	0.0	0.2	0.2	2.6	2.6	0.3	3.5	3.6
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.02	1.00		0.35
Lane Grp Cap(c), veh/h	297	156	0	0	40	64	204	552	579	207	555	545
V/C Ratio(X)	0.44	0.00	0.00	0.00	0.00	0.33	0.05	0.32	0.32	0.10	0.42	0.43
Avail Cap(c_a), veh/h	4174	2191	0	0	2191	3535	1304	2602	2730	2087	2602	2554
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	0.0	0.0	0.0	0.0	16.5	13.5	9.0	9.0	13.5	9.3	9.3
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	1.1	0.0	0.2	0.2	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.8	0.1	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	0.0	0.0	0.0	0.0	17.6	13.5	9.3	9.3	13.6	9.7	9.7
LnGrp LOS	B	A	A	A	A	B	B	A	A	B	A	A
Approach Vol, veh/h	131				21		377		484			
Approach Delay, s/veh	15.7				17.6		9.4		9.8			
Approach LOS	B				B		A		A			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	14.6	6.8		7.9	14.7	4.7					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (G_max), s	40.0	50.0	40.0		25.0	50.0	40.0					
Max Q Clear Time (g_c+I), s	12.3	4.6	3.2		2.2	5.6	2.2					
Green Ext Time (p_c), s	0.0	1.7	0.3		0.0	2.3	0.0					

Intersection Summary

HCM 6th Ctrl Delay 10.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	237	17	7	113	126	265
Future Volume (veh/h)	237	17	7	113	126	265
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	0	8	0	138	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	628	330	1003		252	
Arrive On Green	0.18	0.00	0.54	0.00	0.07	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	274	0	8	0	138	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	3.8	0.0	0.1	0.0	2.2	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.1	0.0	2.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	628	330	1003		252	
V/C Ratio(X)	0.44	0.00	0.01		0.55	
Avail Cap(c_a), veh/h	3185	1672	1003		2471	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.6	0.0	6.0	0.0	25.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	1.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	0.0	0.0	0.0	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.0	0.0	6.1	0.0	26.9	0.0
LnGrp LOS	C	A	A		C	
Approach Vol, veh/h		274	8	A	138	A
Approach Delay, s/veh		21.0	6.1		26.9	
Approach LOS		C	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.9		8.1		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+l1), s		5.8		4.2		2.1
Green Ext Time (p_c), s		1.0		0.5		0.0

Intersection Summary

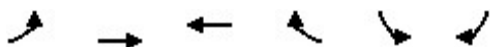
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	16	130	119	3	1	2
Future Vol, veh/h	16	130	119	3	1	2
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	151	138	3	1	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	141	0	-	0	254	71
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	114	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1440	-	-	-	713	977
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	898	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1440	-	-	-	703	977
Mov Cap-2 Maneuver	-	-	-	-	703	-
Stage 1	-	-	-	-	860	-
Stage 2	-	-	-	-	898	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1440	-	-	-	865	
HCM Lane V/C Ratio	0.013	-	-	-	0.004	
HCM Control Delay (s)	7.5	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2511	806	0	0	0
Future Volume (veh/h)	0	2511	806	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	0	2671	857	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	2	4761	7063		3	1
Arrive On Green	0.00	0.96	0.96	0.00	0.00	0.00
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	0	2671	857	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	0.0	6.1	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.1	0.7	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2	4761	7063		3	1
V/C Ratio(X)	0.00	0.56	0.12		0.00	0.00
Avail Cap(c_a), veh/h	319	4761	7063		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.3	0.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.7	0.2	0.0	0.0	0.0
LnGrp LOS	A	A	A		A	A
Approach Vol, veh/h		2671	857	A	0	
Approach Delay, s/veh		0.7	0.2		0.0	
Approach LOS		A	A			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.0		0.0	0.0	118.0
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		8.1		0.0	0.0	2.7
Green Ext Time (p_c), s		72.1		0.0	0.0	17.3
Intersection Summary						
HCM 6th Ctrl Delay			0.6			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3711	14	27	733	0	13	0	36	0	0	0
Future Volume (veh/h)	0	3711	14	27	733	0	13	0	36	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.92		0.92	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3990	15	29	788	0	14	0	39	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	2	4271	1077	72	4636	0	289	0	229	61	328	0
Arrive On Green	0.00	0.68	0.68	0.04	1.00	0.00	0.18	0.00	0.18	0.00	0.00	0.00
Sat Flow, veh/h	1781	6281	1584	3456	6537	0	1299	0	1307	1368	1870	0
Grp Volume(v), veh/h	0	3990	15	29	788	0	14	0	39	0	0	0
Grp Sat Flow(s), veh/h/ln	1781	1570	1584	1728	1570	0	1299	0	1307	1368	1870	0
Q Serve(g_s), s	0.0	65.8	0.4	1.0	0.0	0.0	1.1	0.0	3.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	65.8	0.4	1.0	0.0	0.0	1.1	0.0	3.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	4271	1077	72	4636	0	289	0	229	61	328	0
V/C Ratio(X)	0.00	0.93	0.01	0.40	0.17	0.00	0.05	0.00	0.17	0.00	0.00	0.00
Avail Cap(c_a), veh/h	168	4271	1077	618	4636	0	333	0	274	107	392	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	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	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	16.6	6.1	55.8	0.0	0.0	40.5	0.0	41.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	5.1	0.0	1.4	0.1	0.0	0.0	0.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	20.5	0.1	0.4	0.0	0.0	0.3	0.0	1.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	21.7	6.1	57.2	0.1	0.0	40.6	0.0	41.5	0.0	0.0	0.0
LnGrp LOS	A	C	A	E	A	A	D	A	D	A	A	A
Approach Vol, veh/h	4005			817			53			0		
Approach Delay, s/veh	21.6			2.1			41.2			0.0		
Approach LOS	C			A			D					
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	85.5		25.6	0.0	92.4		25.6				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	21.5	57.6		24.7	11.1	67.6		24.7				
Max Q Clear Time (g_c+I3), s	13.0	67.8		0.0	0.0	2.0		5.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	15.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay 18.6

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱				↰ ↱		↰ ↱ ↱	↱	
Traffic Volume (veh/h)	9	3643	0	11	442	60	0	0	0	5	0	5
Future Volume (veh/h)	9	3643	0	11	442	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	3876	0	12	470	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4067	0	60	4754	627	0	49	0	211	0	41
Arrive On Green	0.01	1.00	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	5657	746	0	1870	0	3377	0	1557
Grp Volume(v), veh/h	10	3876	0	12	389	145	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1692	0	1870	0	1689	0	1557
Q Serve(g_s), s	0.7	0.0	0.0	0.8	1.7	1.8	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.8	1.7	1.8	0.0	0.0	0.0	0.2	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.44	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4067	0	60	3959	1422	0	49	0	211	0	41
V/C Ratio(X)	0.59	0.95	0.00	0.20	0.10	0.10	0.00	0.00	0.00	0.02	0.00	0.12
Avail Cap(c_a), veh/h	195	4067	0	60	3959	1422	0	507	0	1038	0	422
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.0	0.0	0.0	55.4	1.6	1.6	0.0	0.0	0.0	56.0	0.0	56.1
Incr Delay (d2), s/veh	6.3	3.9	0.0	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.5	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	3.9	0.0	56.0	1.7	1.8	0.0	0.0	0.0	56.0	0.0	56.6
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3886			546			0			10		
Approach Delay, s/veh	4.1			2.9			0.0			56.3		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	101.6			8.0	5.5	104.5		8.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	12.9	58.5		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.7	3.8		0.0				
Green Ext Time (p_c), s	0.0	65.2		0.0	0.0	8.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	4.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
40: Coast Guard Dwy/Terminal Link Rd & N Harbor Dr

Existing Conditions with Project
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑							
Traffic Volume (veh/h)	0	3614	1	15	569	0	0	0	18	0	0	0
Future Volume (veh/h)	0	3614	1	15	569	0	0	0	18	0	0	0
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						
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	0	3765	1	16	593	0						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	3	4369	1	27	4618	0						
Arrive On Green	0.00	0.85	0.85	0.02	0.93	0.00						
Sat Flow, veh/h	1781	5147	1	1781	5149	0						
Grp Volume(v), veh/h	0	2431	1335	16	593	0						
Grp Sat Flow(s),veh/h/ln	1781	1662	1826	1781	1662	0						
Q Serve(g_s), s	0.0	29.1	29.1	0.6	0.7	0.0						
Cycle Q Clear(g_c), s	0.0	29.1	29.1	0.6	0.7	0.0						
Prop In Lane	1.00		0.00	1.00		0.00						
Lane Grp Cap(c), veh/h	3	2821	1550	27	4618	0						
V/C Ratio(X)	0.00	0.86	0.86	0.59	0.13	0.00						
Avail Cap(c_a), veh/h	757	2823	1551	757	4618	0						
HCM Platoon Ratio	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	0.00						
Uniform Delay (d), s/veh	0.0	3.0	3.0	34.6	0.2	0.0						
Incr Delay (d2), s/veh	0.0	3.5	6.1	7.3	0.0	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	1.4	2.6	0.3	0.0	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.5	9.1	41.9	0.3	0.0						
LnGrp LOS	A	A	A	D	A	A						
Approach Vol, veh/h	3766			609								
Approach Delay, s/veh	7.4			1.4								
Approach LOS	A			A								
Timer - Assigned Phs	1	2			5	6						
Phs Duration (G+Y+Rc), s	5.5	65.2			0.0	70.6						
Change Period (Y+Rc), s	4.4	5.2			4.4	5.2						
Max Green Setting (Gmax), s	30.0	60.0			30.0	60.0						
Max Q Clear Time (g_c+I), s	12.6	31.1			0.0	2.7						
Green Ext Time (p_c), s	0.0	28.9			0.0	11.4						
Intersection Summary												
HCM 6th Ctrl Delay				6.5								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	14.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	181	0	0	2015	173
Future Vol, veh/h	0	181	0	0	2015	173
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	193	0	0	2144	184

Major/Minor	Minor2		Major2	
Conflicting Flow All	2236	1167	-	0
Stage 1	2236	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	70	~ 160	-	-
Stage 1	40	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	70	~ 160	-	-
Mov Cap-2 Maneuver	70	-	-	-
Stage 1	40	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	192.8	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	160	-	-
HCM Lane V/C Ratio	-	1.203	-	-
HCM Control Delay (s)	0	192.8	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	10.8	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Existing Conditions with Project
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	92	727	28	18	715	329	34	56	40	224	29	136
Future Volume (veh/h)	92	727	28	18	715	329	34	56	40	224	29	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	817	31	20	803	370	38	63	45	252	33	153
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	1275	392	580	2625	811	205	337	257	374	507	445
Arrive On Green	0.02	0.08	0.08	0.33	0.51	0.51	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	5106	1570	1781	5106	1578	558	1181	901	1269	1777	1560
Grp Volume(v), veh/h	103	817	31	20	803	370	71	0	75	252	33	153
Grp Sat Flow(s),veh/h/ln	1781	1702	1570	1781	1702	1578	1131	0	1509	1269	1777	1560
Q Serve(g_s), s	6.9	18.6	2.2	0.9	10.9	17.9	2.6	0.0	4.5	22.4	1.6	9.3
Cycle Q Clear(g_c), s	6.9	18.6	2.2	0.9	10.9	17.9	11.9	0.0	4.5	26.9	1.6	9.3
Prop In Lane	1.00		1.00	1.00		1.00	0.54		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	129	1275	392	580	2625	811	369	0	430	374	507	445
V/C Ratio(X)	0.80	0.64	0.08	0.03	0.31	0.46	0.19	0.00	0.18	0.67	0.07	0.34
Avail Cap(c_a), veh/h	313	1974	607	580	2625	811	572	0	645	555	760	667
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.7	49.8	42.3	27.6	16.8	18.5	35.0	0.0	32.3	42.4	31.2	34.0
Incr Delay (d2), s/veh	4.1	2.4	0.4	0.0	0.3	1.8	0.1	0.0	0.1	6.0	0.2	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 BackOfQ(50%),veh/ln	3.3	8.7	0.9	0.4	4.1	6.5	1.7	0.0	1.7	7.6	0.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	52.2	42.7	27.6	17.1	20.3	35.1	0.0	32.3	48.4	31.4	35.3
LnGrp LOS	E	D	D	C	B	C	D	A	C	D	C	D
Approach Vol, veh/h		951			1193			146			438	
Approach Delay, s/veh		52.9			18.3			33.7			42.5	
Approach LOS		D			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	45.2	35.7		39.1	13.1	67.8		39.1				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	7.3	* 46		51.3	21.1	32.2		51.3				
Max Q Clear Time (g_c+I1), s	2.9	20.6		28.9	8.9	19.9		13.9				
Green Ext Time (p_c), s	0.0	9.4		4.8	0.1	8.9		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				35.1								
HCM 6th LOS				D								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←↑↑↑	↑↑↑		←↑↑	↑↑↑	↑		←↑	↑	←↑	↑↑	
Traffic Volume (veh/h)	46	506	1	0	472	416	1	0	0	332	0	30
Future Volume (veh/h)	46	506	1	0	472	416	1	0	0	332	0	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	556	1	0	519	0	1	0	0	396	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	990	2	837	2228		19	0	17	532	279	0
Arrive On Green	0.04	0.19	0.19	0.00	0.21	0.00	0.01	0.00	0.00	0.15	0.00	0.00
Sat Flow, veh/h	1781	5263	9	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	51	360	197	0	519	0	1	0	0	396	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	3.4	11.5	11.5	0.0	14.6	0.0	0.1	0.0	0.0	12.8	0.0	0.0
Cycle Q Clear(g_c), s	3.4	11.5	11.5	0.0	14.6	0.0	0.1	0.0	0.0	12.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	66	641	352	837	2228		19	0	17	532	279	0
V/C Ratio(X)	0.77	0.56	0.56	0.00	0.23		0.05	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	224	1166	640	837	2228		157	0	140	1101	578	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.96	0.00	1.00	0.00	0.00	0.85	0.00	0.00
Uniform Delay (d), s/veh	57.3	44.2	44.2	0.0	23.5	0.0	58.7	0.0	0.0	48.9	0.0	0.0
Incr Delay (d2), s/veh	7.0	3.5	6.4	0.0	0.2	0.0	0.4	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 BackOfQ(50%),veh/ln	1.6	5.0	5.8	0.0	7.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.3	47.7	50.6	0.0	23.8	0.0	59.1	0.0	0.0	49.5	0.0	0.0
LnGrp LOS	E	D	D	A	C		E	A	A	D	A	A
Approach Vol, veh/h	608			519			A			396		
Approach Delay, s/veh	50.1			23.8			59.1			49.5		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	62.3	27.7		23.8	8.8	81.1		6.2				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.9	* 41		37.1	15.1	36.1		10.6				
Max Q Clear Time (g_c+I), s	13.5	13.5		14.8	5.4	16.6		2.1				
Green Ext Time (p_c), s	0.0	9.1		0.7	0.0	5.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	241	138	54	348	145	207	797	58	92	742	148
Future Volume (veh/h)	240	241	138	54	348	145	207	797	58	92	742	148
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	255	256	147	57	370	154	220	848	62	98	789	157
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	555	307	73	483	314	242	1713	125	119	1302	259
Arrive On Green	0.15	0.25	0.25	0.04	0.14	0.14	0.14	0.51	0.51	0.07	0.44	0.44
Sat Flow, veh/h	1781	2191	1212	1781	3554	1533	1781	3356	245	1781	2950	587
Grp Volume(v), veh/h	255	206	197	57	370	154	220	449	461	98	475	471
Grp Sat Flow(s),veh/h/ln	1781	1777	1626	1781	1777	1533	1781	1777	1825	1781	1777	1760
Q Serve(g_s), s	21.2	14.7	15.5	4.8	15.1	9.1	18.3	24.8	24.8	8.2	30.6	30.6
Cycle Q Clear(g_c), s	21.2	14.7	15.5	4.8	15.1	9.1	18.3	24.8	24.8	8.2	30.6	30.6
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.13	1.00		0.33
Lane Grp Cap(c), veh/h	276	450	412	73	483	314	242	907	931	119	784	777
V/C Ratio(X)	0.92	0.46	0.48	0.78	0.77	0.49	0.91	0.50	0.50	0.82	0.61	0.61
Avail Cap(c_a), veh/h	319	450	412	191	642	383	423	907	931	306	784	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(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.5	47.3	47.6	71.3	62.5	27.8	63.9	24.1	24.1	69.1	31.9	31.9
Incr Delay (d2), s/veh	27.7	0.3	0.3	6.4	2.5	0.4	7.5	1.9	1.9	5.3	3.5	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	6.6	6.4	2.3	7.0	3.4	8.8	11.0	11.3	3.9	14.0	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.2	47.6	47.9	77.7	65.0	28.2	71.4	26.0	25.9	74.5	35.4	35.4
LnGrp LOS	F	D	D	E	E	C	E	C	C	E	D	D
Approach Vol, veh/h	658		581			1130			1044			
Approach Delay, s/veh	64.2		56.5			34.8			39.1			
Approach LOS	E		E			C			D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	81.9	10.5	43.2	24.8	71.5	28.4	25.3				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	25.8	* 52	16.1	37.6	35.6	41.4	26.9	* 27				
Max Q Clear Time (g_c+T10), s	110.2	26.8	6.8	17.5	20.3	32.6	23.2	17.1				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.9	0.1	1.8	0.1	0.8				

Intersection Summary

HCM 6th Ctrl Delay	45.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	143	56	354	569	56	198	326	57	56	301	100
Future Volume (veh/h)	77	143	56	354	569	56	198	326	57	56	301	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	154	60	381	612	60	213	351	61	60	324	108
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	865	383	421	703	69	251	992	414	77	641	201
Arrive On Green	0.06	0.24	0.24	0.24	0.42	0.42	0.14	0.27	0.27	0.04	0.17	0.17
Sat Flow, veh/h	1781	3554	1575	1781	1676	164	1781	3741	1559	1781	3819	1195
Grp Volume(v), veh/h	83	154	60	381	0	672	213	351	61	60	286	146
Grp Sat Flow(s),veh/h/ln	1781	1777	1575	1781	0	1840	1781	1870	1559	1781	1702	1610
Q Serve(g_s), s	4.1	3.1	2.7	18.7	0.0	30.0	10.5	6.8	2.7	3.0	6.9	7.4
Cycle Q Clear(g_c), s	4.1	3.1	2.7	18.7	0.0	30.0	10.5	6.8	2.7	3.0	6.9	7.4
Prop In Lane	1.00		1.00	1.00		0.09	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	107	865	383	421	0	772	251	992	414	77	572	270
V/C Ratio(X)	0.78	0.18	0.16	0.90	0.00	0.87	0.85	0.35	0.15	0.78	0.50	0.54
Avail Cap(c_a), veh/h	210	1350	598	806	0	1314	468	1863	777	230	1240	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	41.6	26.9	26.7	33.3	0.0	23.8	37.6	26.7	25.2	42.5	33.9	34.2
Incr Delay (d2), s/veh	4.5	0.0	0.1	3.0	0.0	3.4	3.1	0.4	0.3	6.1	1.2	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.3	1.0	8.3	0.0	13.2	4.6	3.0	1.0	1.4	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	26.9	26.8	36.3	0.0	27.3	40.8	27.1	25.5	48.6	35.1	37.1
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	D	D
Approach Vol, veh/h		297			1053			625			492	
Approach Delay, s/veh		32.3			30.5			31.6			37.4	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	29.1	25.6	26.7	17.0	20.4	9.8	42.6				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	11.6	44.7	40.6	34.1	23.6	32.7	10.6	64.1				
Max Q Clear Time (g_c+I1), s	5.0	8.8	20.7	5.1	12.5	9.4	6.1	32.0				
Green Ext Time (p_c), s	0.0	4.7	0.6	0.8	0.2	4.5	0.0	5.7				
Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	41	51	207	2	2	52	556	368	38	670	23
Future Volume (veh/h)	24	41	51	207	2	2	52	556	368	38	670	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No				No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	45	56	227	2	2	57	611	404	42	736	25
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	518	205	255	429	232	232	77	1492	654	62	1958	66
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.04	0.42	0.42	0.04	0.39	0.39
Sat Flow, veh/h	1408	756	941	1290	856	856	1781	3554	1557	1781	5066	172
Grp Volume(v), veh/h	26	0	101	227	0	4	57	611	404	42	494	267
Grp Sat Flow(s),veh/h/ln	1408	0	1697	1290	0	1713	1781	1777	1557	1781	1702	1833
Q Serve(g_s), s	0.7	0.0	2.4	8.6	0.0	0.1	1.6	6.2	10.5	1.2	5.4	5.4
Cycle Q Clear(g_c), s	0.8	0.0	2.4	11.0	0.0	0.1	1.6	6.2	10.5	1.2	5.4	5.4
Prop In Lane	1.00		0.55	1.00		0.50	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	518	0	459	429	0	464	77	1492	654	62	1316	709
V/C Ratio(X)	0.05	0.00	0.22	0.53	0.00	0.01	0.74	0.41	0.62	0.67	0.38	0.38
Avail Cap(c_a), veh/h	1002	0	1043	853	0	1026	138	1492	654	138	1322	712
HCM Platoon Ratio	1.00	1.00	1.00	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	14.1	0.0	14.6	18.9	0.0	13.8	24.5	10.5	11.8	24.7	11.4	11.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	5.1	0.3	2.3	4.6	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	2.4	0.0	0.0	0.7	2.0	3.3	0.5	1.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	14.7	19.3	0.0	13.8	29.6	10.8	14.1	29.3	11.6	11.7
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	127		231			1072			803			
Approach Delay, s/veh	14.6		19.2			13.1			12.5			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.2	26.7	18.8		7.2	25.7	18.8					
Change Period (Y+Rc), s	4.4	5.0	* 4.8		5.0	* 5.7	* 4.8					
Max Green Setting (Gmax), s	1.0	20.8	* 32		4.0	* 20	* 31					
Max Q Clear Time (g_c+13, s)	13.2	12.5	4.4		3.6	7.4	13.0					
Green Ext Time (p_c), s	0.0	5.0	0.4		0.0	3.9	0.4					

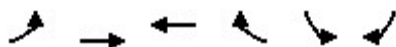
Intersection Summary

HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	←	←	←
Traffic Volume (veh/h)	1444	1548	2397	52	0	84
Future Volume (veh/h)	1444	1548	2397	52	0	84
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1641	1759	2724	0	0	95
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1694	3136	2655		47	576
Arrive On Green	0.34	0.90	0.53	0.00	0.00	0.03
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1641	1759	2724	0	0	95
Grp Sat Flow(s), veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	48.2	14.8	79.9	0.0	0.0	0.0
Cycle Q Clear(g_c), s	48.2	14.8	79.9	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1694	3136	2655		47	576
V/C Ratio(X)	0.97	0.56	1.03		0.00	0.16
Avail Cap(c_a), veh/h	1694	3136	2655		188	701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.22	0.00	0.00	1.00
Uniform Delay (d), s/veh	48.9	1.4	35.0	0.0	0.0	32.3
Incr Delay (d2), s/veh	15.0	0.7	16.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	1.1	34.1	0.0	0.0	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.0	2.1	51.0	0.0	0.0	32.4
LnGrp LOS	E	A	F		A	C
Approach Vol, veh/h		3400	2724	A	95	
Approach Delay, s/veh		32.0	51.0		32.4	
Approach LOS		C	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		140.9		9.1	55.9	85.0
Change Period (Y+Rc), s		5.3		5.2	5.3	* 5.1
Max Green Setting (Gmax), s		123.7		15.8	39.6	* 80
Max Q Clear Time (g_c+I1), s		16.8		2.0	50.2	81.9
Green Ext Time (p_c), s		82.8		0.1	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			40.3			
HCM 6th LOS			D			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔	↕↕		↔	↕	↕	↔	↕↕	↕↕
Traffic Volume (veh/h)	642	787	37	65	822	44	103	275	61	52	159	729
Future Volume (veh/h)	642	787	37	65	822	44	103	275	61	52	159	729
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		0.95	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	690	846	40	70	884	47	111	296	66	56	171	784
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	1371	65	847	2412	128	95	538	433	72	975	1194
Arrive On Green	0.18	0.40	0.40	0.48	0.70	0.70	0.05	0.29	0.29	0.04	0.27	0.27
Sat Flow, veh/h	3456	3452	163	1781	3432	182	1781	1870	1507	1781	3554	2551
Grp Volume(v), veh/h	690	435	451	70	458	473	111	296	66	56	171	784
Grp Sat Flow(s),veh/h/ln	1728	1777	1838	1781	1777	1837	1781	1870	1507	1781	1777	1276
Q Serve(g_s), s	18.6	20.6	20.6	2.3	10.8	10.8	5.6	14.1	2.5	3.3	3.9	25.5
Cycle Q Clear(g_c), s	18.6	20.6	20.6	2.3	10.8	10.8	5.6	14.1	2.5	3.3	3.9	25.5
Prop In Lane	1.00		0.09	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	612	706	730	847	1249	1291	95	538	433	72	975	1194
V/C Ratio(X)	1.13	0.62	0.62	0.08	0.37	0.37	1.17	0.55	0.15	0.78	0.18	0.66
Avail Cap(c_a), veh/h	612	706	730	847	1249	1291	95	538	433	102	981	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	0.98	0.98	0.98	0.91	0.91	0.91
Uniform Delay (d), s/veh	43.2	25.3	25.3	15.0	6.2	6.2	49.7	31.7	15.4	49.9	29.0	22.8
Incr Delay (d2), s/veh	76.7	4.0	3.9	0.2	0.7	0.7	143.7	1.3	0.2	12.2	0.1	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	9.0	9.3	0.9	3.5	3.6	6.2	6.4	1.2	1.7	1.6	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.9	29.3	29.2	15.2	7.0	6.9	193.4	33.0	15.5	62.2	29.1	24.2
LnGrp LOS	F	C	C	B	A	A	F	C	B	E	C	C
Approach Vol, veh/h	1576		1001				473				1011	
Approach Delay, s/veh	68.9		7.5				68.2				27.1	
Approach LOS	E		A				E				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	35.2	56.9	46.9	10.0	33.8	23.0	80.8				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	6.0	* 29	9.7	* 42	5.6	29.0	18.6	32.2				
Max Q Clear Time (g_c+1/3), s	15.3	16.1	4.3	22.6	7.6	27.5	20.6	12.8				
Green Ext Time (p_c), s	0.0	1.7	0.0	7.0	0.0	0.9	0.0	4.9				

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↑↑	↗
Traffic Volume (veh/h)	0	855	41	31	185	0	0	0	0	223	196	746
Future Volume (veh/h)	0	855	41	31	185	0	0	0	0	223	196	746
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	961	46	35	208	0				251	220	838
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1682	81	60	1965	0				644	642	975
Arrive On Green	0.00	0.49	0.49	0.03	0.55	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	3543	165	1781	3647	0				1781	1777	2698
Grp Volume(v), veh/h	0	495	512	35	208	0				251	220	838
Grp Sat Flow(s),veh/h/ln	0	1777	1838	1781	1777	0				1781	1777	1349
Q Serve(g_s), s	0.0	27.7	27.7	2.7	3.9	0.0				14.7	12.6	40.3
Cycle Q Clear(g_c), s	0.0	27.7	27.7	2.7	3.9	0.0				14.7	12.6	40.3
Prop In Lane	0.00		0.09	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	867	896	60	1965	0				644	642	975
V/C Ratio(X)	0.00	0.57	0.57	0.58	0.11	0.00				0.39	0.34	0.86
Avail Cap(c_a), veh/h	0	867	896	198	1965	0				644	642	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.83	0.83	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	25.5	25.5	66.7	14.9	0.0				33.2	32.6	41.4
Incr Delay (d2), s/veh	0.0	2.3	2.2	2.7	0.1	0.0				1.8	1.5	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 BackOfQ(50%),veh/ln	0.0	11.9	12.3	1.3	1.6	0.0				6.8	5.8	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.8	27.7	69.4	15.0	0.0				35.0	34.0	51.2
LnGrp LOS	A	C	C	E	B	A				D	C	D
Approach Vol, veh/h		1007			243						1309	
Approach Delay, s/veh		27.8			22.8						45.2	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.1	74.9		56.0		84.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	5.6	* 59		50.6		77.4						
Max Q Clear Time (g_c+I14, s)	14.7	29.7		42.3		5.9						
Green Ext Time (p_c), s	0.0	2.0		1.7		0.5						

Intersection Summary

HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	↑
Traffic Volume (veh/h)	0	418	0	0	1298	430
Future Volume (veh/h)	0	418	0	0	1298	430
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				0.99
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	464			1442	478
Peak Hour Factor	0.90	0.90			0.90	0.90
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3288	1078
Arrive On Green	0.00	0.00			0.87	0.87
Sat Flow, veh/h	0				3965	1245
Grp Volume(v), veh/h	0.0				1291	629
Grp Sat Flow(s),veh/h/ln					1702	1638
Q Serve(g_s), s					2.7	2.8
Cycle Q Clear(g_c), s					2.7	2.8
Prop In Lane						0.76
Lane Grp Cap(c), veh/h					2947	1418
V/C Ratio(X)					0.44	0.44
Avail Cap(c_a), veh/h					5430	2612
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.5
Incr Delay (d2), s/veh					0.1	0.2
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	0.7
LnGrp LOS					A	A
Approach Vol, veh/h					1920	
Approach Delay, s/veh					0.6	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					33.5	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					53.5	
Max Q Clear Time (g_c+I1), s					4.8	
Green Ext Time (p_c), s					24.2	
Intersection Summary						
HCM 6th Ctrl Delay			0.6			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	84	203	88	326	523	76	191	316	111	50	298	94
Future Volume (veh/h)	84	203	88	326	523	76	191	316	111	50	298	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	218	95	351	562	82	205	340	119	54	320	101
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	490	215	575	640	93	241	1036	429	69	697	206
Arrive On Green	0.06	0.14	0.14	0.32	0.40	0.40	0.14	0.28	0.28	0.04	0.18	0.18
Sat Flow, veh/h	1781	3554	1561	1781	1594	233	1781	3741	1550	1781	3863	1140
Grp Volume(v), veh/h	90	218	95	351	0	644	205	340	119	54	279	142
Grp Sat Flow(s),veh/h/ln	1781	1777	1561	1781	0	1827	1781	1870	1550	1781	1702	1599
Q Serve(g_s), s	4.3	4.9	3.5	14.5	0.0	28.4	9.8	6.3	2.1	2.6	6.4	6.9
Cycle Q Clear(g_c), s	4.3	4.9	3.5	14.5	0.0	28.4	9.8	6.3	2.1	2.6	6.4	6.9
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.71
Lane Grp Cap(c), veh/h	115	490	215	575	0	734	241	1036	429	69	614	289
V/C Ratio(X)	0.78	0.45	0.44	0.61	0.00	0.88	0.85	0.33	0.28	0.78	0.45	0.49
Avail Cap(c_a), veh/h	161	1366	600	575	0	1032	290	1490	617	188	1160	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	40.1	34.5	17.8	24.9	0.0	24.1	36.8	25.1	3.8	41.5	31.9	32.1
Incr Delay (d2), s/veh	9.5	0.2	0.5	1.4	0.0	6.5	15.8	0.3	0.6	7.0	0.9	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.1	1.8	6.2	0.0	13.1	5.2	2.7	1.9	1.3	2.6	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	34.7	18.4	26.3	0.0	30.6	52.7	25.4	4.4	48.5	32.8	34.4
LnGrp LOS	D	C	B	C	A	C	D	C	A	D	C	C
Approach Vol, veh/h		403			995			664			475	
Approach Delay, s/veh		34.2			29.1			30.1			35.1	
Approach LOS		C			C			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	29.4	33.0	16.9	16.2	21.0	10.0	39.9				
Change Period (Y+Rc), s	4.4	5.3	4.9	* 4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	9.2	34.7	23.6	* 34	14.2	29.7	7.9	49.2				
Max Q Clear Time (g_c+I1), s	4.6	8.3	16.5	6.9	11.8	8.9	6.3	30.4				
Green Ext Time (p_c), s	0.0	4.7	0.4	1.1	0.1	4.2	0.0	4.6				

Intersection Summary

HCM 6th Ctrl Delay 31.3

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	37	52	198	4	19	39	574	383	21	687	22
Future Volume (veh/h)	29	37	52	198	4	19	39	574	383	21	687	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	39	55	208	4	20	41	604	403	22	723	23
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	499	188	265	436	72	362	62	1467	641	38	2026	64
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.41	0.41	0.02	0.40	0.40
Sat Flow, veh/h	1378	699	986	1295	270	1348	1781	3554	1553	1781	5078	161
Grp Volume(v), veh/h	31	0	94	208	0	24	41	604	403	22	484	262
Grp Sat Flow(s),veh/h/ln	1378	0	1685	1295	0	1617	1781	1777	1553	1781	1702	1835
Q Serve(g_s), s	0.9	0.0	2.2	7.4	0.0	0.6	1.1	6.0	10.3	0.6	5.0	5.0
Cycle Q Clear(g_c), s	1.4	0.0	2.2	9.6	0.0	0.6	1.1	6.0	10.3	0.6	5.0	5.0
Prop In Lane	1.00		0.59	1.00		0.83	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	499	0	453	436	0	435	62	1467	641	38	1358	732
V/C Ratio(X)	0.06	0.00	0.21	0.48	0.00	0.06	0.66	0.41	0.63	0.59	0.36	0.36
Avail Cap(c_a), veh/h	1003	0	1069	889	0	1000	142	1467	641	163	1365	736
HCM Platoon Ratio	1.00	1.00	1.00	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	14.1	0.0	14.2	17.9	0.0	13.6	23.9	10.4	11.7	24.3	10.5	10.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	4.5	0.3	2.6	5.3	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	2.1	0.0	0.2	0.5	1.9	3.2	0.3	1.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	14.3	18.2	0.0	13.6	28.4	10.7	14.2	29.6	10.7	10.9
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	125			232			1048			768		
Approach Delay, s/veh	14.2			17.7			12.8			11.3		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	5.5	26.4	18.3		6.1	25.7	18.3					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	1.6	* 20	* 32		4.0	20.1	* 31					
Max Q Clear Time (g_c+I), s	12.6	12.3	4.2		3.1	7.0	11.6					
Green Ext Time (p_c), s	0.0	4.8	0.4		0.0	3.9	0.4					

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

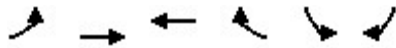
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	←	←	←
Traffic Volume (veh/h)	1483	1559	2061	57	0	60
Future Volume (veh/h)	1483	1559	2061	57	0	60
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1561	1641	2169	0	0	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1902	3141	2456		44	639
Arrive On Green	0.38	0.91	0.49	0.00	0.00	0.02
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1561	1641	2169	0	0	63
Grp Sat Flow(s), veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	42.0	12.8	58.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	42.0	12.8	58.6	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1902	3141	2456		44	639
V/C Ratio(X)	0.82	0.52	0.88		0.00	0.10
Avail Cap(c_a), veh/h	1902	3141	2456		200	778
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.50	0.00	0.00	1.00
Uniform Delay (d), s/veh	42.0	1.3	34.2	0.0	0.0	27.8
Incr Delay (d2), s/veh	2.8	0.6	2.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.9	23.1	0.0	0.0	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	1.9	36.8	0.0	0.0	27.8
LnGrp LOS	D	A	D		A	C
Approach Vol, veh/h		3202	2169	A	63	
Approach Delay, s/veh		22.8	36.8		27.8	
Approach LOS		C	D		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		141.1		8.9	62.1	79.0
Change Period (Y+Rc), s		5.3		5.2	5.3	* 5.1
Max Green Setting (Gmax), s		122.7		16.8	44.6	* 74
Max Q Clear Time (g_c+I1), s		14.8		2.0	44.0	60.6
Green Ext Time (p_c), s		76.6		0.1	0.3	13.1

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	625	850	41	89	725	68	73	278	62	84	159	696
Future Volume (veh/h)	625	850	41	89	725	68	73	278	62	84	159	696
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.95	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	638	867	42	91	740	69	74	284	63	86	162	710
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	645	1311	63	351	1306	122	88	474	383	109	943	1207
Arrive On Green	0.19	0.38	0.38	0.20	0.40	0.40	0.05	0.25	0.25	0.06	0.27	0.27
Sat Flow, veh/h	3456	3449	167	1781	3280	306	1781	1870	1510	1781	3554	2584
Grp Volume(v), veh/h	638	447	462	91	401	408	74	284	63	86	162	710
Grp Sat Flow(s),veh/h/ln	1728	1777	1839	1781	1777	1809	1781	1870	1510	1781	1777	1292
Q Serve(g_s), s	19.3	21.9	21.9	4.5	18.4	18.4	4.3	14.0	2.4	5.0	3.7	21.8
Cycle Q Clear(g_c), s	19.3	21.9	21.9	4.5	18.4	18.4	4.3	14.0	2.4	5.0	3.7	21.8
Prop In Lane	1.00		0.09	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	645	675	699	351	707	720	88	474	383	109	943	1207
V/C Ratio(X)	0.99	0.66	0.66	0.26	0.57	0.57	0.84	0.60	0.16	0.79	0.17	0.59
Avail Cap(c_a), veh/h	645	675	699	351	707	720	88	474	383	139	981	1234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	0.99	0.99	0.99	0.93	0.93	0.93
Uniform Delay (d), s/veh	42.6	27.0	27.0	35.7	24.6	24.6	49.5	34.5	15.5	48.6	29.7	21.7
Incr Delay (d2), s/veh	32.6	5.0	4.9	1.6	2.9	2.9	45.5	2.2	0.2	14.6	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	0.9	9.7	10.1	2.1	7.9	8.1	3.0	6.5	1.2	2.6	1.6	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.2	32.0	31.8	37.3	27.5	27.4	95.0	36.7	15.8	63.3	29.8	22.6
LnGrp LOS	E	C	C	D	C	C	F	D	B	E	C	C
Approach Vol, veh/h	1547			900			421			958		
Approach Delay, s/veh	49.7			28.4			43.8			27.4		
Approach LOS	D			C			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.6	26.8	45.1	9.6	32.9	24.0	47.9					
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	26	* 26	11.9	* 40	5.2	29.0	19.6	31.6				
Max Q Clear Time (g_c+11), s	16.0	6.5	23.9	6.3	23.8	21.3	20.4					
Green Ext Time (p_c), s	0.0	1.4	0.0	6.6	0.0	2.7	0.0	3.3				

Intersection Summary

HCM 6th Ctrl Delay 38.5

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	907	54	41	158	0	0	0	0	182	155	702
Future Volume (veh/h)	0	907	54	41	158	0	0	0	0	182	155	702
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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	986	59	45	172	0				198	168	763
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1695	101	70	2021	0				616	614	932
Arrive On Green	0.00	0.50	0.50	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3499	204	1781	3647	0				1781	1777	2696
Grp Volume(v), veh/h	0	514	531	45	172	0				198	168	763
Grp Sat Flow(s),veh/h/ln	0	1777	1833	1781	1777	0				1781	1777	1348
Q Serve(g_s), s	0.0	28.6	28.7	3.5	3.1	0.0				11.5	9.6	36.1
Cycle Q Clear(g_c), s	0.0	28.6	28.7	3.5	3.1	0.0				11.5	9.6	36.1
Prop In Lane	0.00		0.11	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	884	912	70	2021	0				616	614	932
V/C Ratio(X)	0.00	0.58	0.58	0.64	0.09	0.00				0.32	0.27	0.82
Avail Cap(c_a), veh/h	0	884	912	313	2021	0				616	614	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.80	0.80	0.87	0.87	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	24.9	24.9	66.3	13.7	0.0				33.7	33.1	41.8
Incr Delay (d2), s/veh	0.0	2.2	2.2	3.1	0.1	0.0				1.4	1.1	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	12.7	1.6	1.2	0.0				5.3	4.4	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.1	27.0	69.4	13.8	0.0				35.1	34.2	49.7
LnGrp LOS	A	C	C	E	B	A				D	C	D
Approach Vol, veh/h		1045			217						1129	
Approach Delay, s/veh		27.1			25.3						44.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.9	76.3		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.5	30.7		38.1		5.1						
Green Ext Time (p_c), s	0.0	2.0		1.5		0.4						

Intersection Summary

HCM 6th Ctrl Delay	35.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	↑↑
Traffic Volume (veh/h)	0	476	0	0	1137	419
Future Volume (veh/h)	0	476	0	0	1137	419
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	506			1210	446
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3070	1129
Arrive On Green	0.00	0.00			0.84	0.84
Sat Flow, veh/h	0				3843	1352
Grp Volume(v), veh/h	0.0				1121	535
Grp Sat Flow(s),veh/h/ln					1702	1622
Q Serve(g_s), s					2.2	2.2
Cycle Q Clear(g_c), s					2.2	2.2
Prop In Lane						0.83
Lane Grp Cap(c), veh/h					2844	1355
V/C Ratio(X)					0.39	0.40
Avail Cap(c_a), veh/h					6165	2938
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.6	0.6
Incr Delay (d2), s/veh					0.1	0.2
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	0.7
LnGrp LOS					A	A
Approach Vol, veh/h					1656	
Approach Delay, s/veh					0.7	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					27.3	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					49.5	
Max Q Clear Time (g_c+l1), s					4.2	
Green Ext Time (p_c), s					18.6	
Intersection Summary						
HCM 6th Ctrl Delay			0.7			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	109	224	100	285	313	79	167	445	66	148	1004	62
Future Volume (veh/h)	109	224	100	285	313	79	167	445	66	148	1004	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	238	106	303	333	84	178	473	70	157	1068	66
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	599	266	336	397	100	212	991	146	191	1512	93
Arrive On Green	0.08	0.17	0.17	0.19	0.28	0.28	0.12	0.32	0.32	0.11	0.31	0.31
Sat Flow, veh/h	1781	3554	1579	1781	1441	363	1781	3104	457	1781	4914	303
Grp Volume(v), veh/h	116	238	106	303	0	417	178	270	273	157	739	395
Grp Sat Flow(s),veh/h/ln	1781	1777	1579	1781	0	1804	1781	1777	1785	1781	1702	1813
Q Serve(g_s), s	5.6	5.2	5.3	14.6	0.0	19.2	8.6	10.7	10.8	7.6	16.9	16.9
Cycle Q Clear(g_c), s	5.6	5.2	5.3	14.6	0.0	19.2	8.6	10.7	10.8	7.6	16.9	16.9
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.26	1.00		0.17
Lane Grp Cap(c), veh/h	146	599	266	336	0	497	212	567	570	191	1047	558
V/C Ratio(X)	0.79	0.40	0.40	0.90	0.00	0.84	0.84	0.48	0.48	0.82	0.71	0.71
Avail Cap(c_a), veh/h	219	1334	593	336	0	796	215	567	570	278	1192	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	32.6	32.6	34.9	0.0	30.0	37.9	24.0	24.1	38.4	26.9	26.9
Incr Delay (d2), s/veh	6.1	0.2	0.4	25.4	0.0	4.5	23.1	1.2	1.2	7.9	2.2	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.3	2.0	8.6	0.0	8.8	5.0	4.5	4.6	3.6	6.8	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	32.7	32.9	60.2	0.0	34.6	61.0	25.2	25.2	46.3	29.1	31.0
LnGrp LOS	D	C	C	E	A	C	E	C	C	D	C	C
Approach Vol, veh/h		460			720			721			1291	
Approach Delay, s/veh		36.0			45.4			34.0			31.8	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.9	33.4	21.0	19.7	14.9	32.3	11.6	29.1				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	13.7	27.7	16.6	33.0	10.6	30.8	10.8	38.8				
Max Q Clear Time (g_c+l1), s	9.6	12.8	16.6	7.3	10.6	18.9	7.6	21.2				
Green Ext Time (p_c), s	0.1	4.5	0.0	1.2	0.0	7.8	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			36.0									
HCM 6th LOS			D									

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	46	63	197	1	3	30	620	376	68	1334	20
Future Volume (veh/h)	29	46	63	197	1	3	30	620	376	68	1334	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	53	73	229	1	3	35	721	437	79	1551	23
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	549	214	294	437	123	370	54	1331	589	100	2077	31
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.03	0.37	0.37	0.06	0.40	0.40
Sat Flow, veh/h	1401	709	976	1257	409	1228	1781	3554	1574	1781	5183	77
Grp Volume(v), veh/h	34	0	126	229	0	4	35	721	437	79	1019	555
Grp Sat Flow(s),veh/h/ln	1401	0	1685	1257	0	1638	1781	1777	1574	1781	1702	1855
Q Serve(g_s), s	1.0	0.0	3.1	9.4	0.0	0.1	1.1	8.9	13.4	2.4	14.2	14.2
Cycle Q Clear(g_c), s	1.1	0.0	3.1	12.5	0.0	0.1	1.1	8.9	13.4	2.4	14.2	14.2
Prop In Lane	1.00		0.58	1.00		0.75	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	549	0	508	437	0	493	54	1331	589	100	1364	744
V/C Ratio(X)	0.06	0.00	0.25	0.52	0.00	0.01	0.65	0.54	0.74	0.79	0.75	0.75
Avail Cap(c_a), veh/h	928	0	963	759	0	913	131	1469	651	218	1530	834
HCM Platoon Ratio	1.00	1.00	1.00	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	14.0	0.0	14.7	19.4	0.0	13.6	26.7	13.7	15.1	25.9	14.3	14.3
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	4.9	0.6	5.0	5.0	1.8	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.1	2.6	0.0	0.0	0.5	3.1	4.8	1.1	4.8	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	0.0	14.8	19.8	0.0	13.6	31.6	14.3	20.1	30.9	16.1	17.6
LnGrp LOS	B	A	B	B	A	B	C	B	C	C	B	B
Approach Vol, veh/h	160		233			1193			1653			
Approach Delay, s/veh	14.6		19.7			16.9			17.3			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.5	26.5	21.6		6.1	28.0	21.6					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	6.8	* 23	* 32		4.1	25.0	* 31					
Max Q Clear Time (g_c+I), s	14.4	15.4	5.1		3.1	16.2	14.5					
Green Ext Time (p_c), s	0.0	5.2	0.5		0.0	6.1	0.4					

Intersection Summary

HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	←	←	←
Traffic Volume (veh/h)	1714	1976	1865	128	0	42
Future Volume (veh/h)	1714	1976	1865	128	0	42
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1785	2058	1943	0	0	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1947	3149	2423		40	650
Arrive On Green	0.39	0.91	0.49	0.00	0.00	0.02
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1785	2058	1943	0	0	44
Grp Sat Flow(s), veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	50.6	20.2	49.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	50.6	20.2	49.3	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1947	3149	2423		40	650
V/C Ratio(X)	0.92	0.65	0.80		0.00	0.07
Avail Cap(c_a), veh/h	1947	3149	2423		200	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.65	0.00	0.00	1.00
Uniform Delay (d), s/veh	43.6	1.6	32.5	0.0	0.0	26.9
Incr Delay (d2), s/veh	7.2	1.1	1.9	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	21.6	1.2	19.4	0.0	0.0	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.9	2.6	34.4	0.0	0.0	26.9
LnGrp LOS	D	A	C		A	C
Approach Vol, veh/h		3843	1943	A	44	
Approach Delay, s/veh		25.0	34.4		26.9	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		141.4		8.6	63.4	78.0
Change Period (Y+Rc), s		5.3		5.2	5.3	* 5.1
Max Green Setting (Gmax), s		122.7		16.8	45.6	* 73
Max Q Clear Time (g_c+I1), s		22.2		2.0	52.6	51.3
Green Ext Time (p_c), s		90.3		0.0	0.0	20.8
Intersection Summary						
HCM 6th Ctrl Delay			28.2			
HCM 6th LOS			C			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Existing Plus Project Conditions (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	602	1186	78	162	521	97	85	305	118	201	732	713
Future Volume (veh/h)	602	1186	78	162	521	97	85	305	118	201	732	713
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	700	1379	91	188	606	113	99	355	137	234	851	829
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	763	1412	93	899	2117	394	114	353	297	238	918	1330
Arrive On Green	0.22	0.42	0.42	0.50	0.71	0.71	0.06	0.19	0.19	0.13	0.26	0.26
Sat Flow, veh/h	3456	3381	222	1781	2990	556	1781	1870	1572	1781	3554	2763
Grp Volume(v), veh/h	700	723	747	188	360	359	99	355	137	234	851	829
Grp Sat Flow(s),veh/h/ln	1728	1777	1826	1781	1777	1770	1781	1870	1572	1781	1777	1381
Q Serve(g_s), s	24.7	49.9	50.4	7.3	9.3	9.3	6.9	23.6	7.5	16.4	29.2	27.9
Cycle Q Clear(g_c), s	24.7	49.9	50.4	7.3	9.3	9.3	6.9	23.6	7.5	16.4	29.2	27.9
Prop In Lane	1.00		0.12	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	763	742	763	899	1258	1253	114	353	297	238	918	1330
V/C Ratio(X)	0.92	0.97	0.98	0.21	0.29	0.29	0.87	1.01	0.46	0.98	0.93	0.62
Avail Cap(c_a), veh/h	818	742	763	899	1258	1253	114	353	297	238	918	1330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.92	0.92	0.92	0.99	0.99	0.99	0.70	0.70	0.70
Uniform Delay (d), s/veh	47.6	35.7	35.9	17.1	6.7	6.7	58.0	50.7	27.0	54.0	45.2	24.2
Incr Delay (d2), s/veh	14.6	27.3	28.0	0.5	0.5	0.5	44.6	49.0	1.2	44.0	11.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	26.2	27.3	3.0	3.2	3.2	4.5	15.7	2.9	10.2	14.1	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.2	63.0	63.9	17.6	7.2	7.2	102.6	99.7	28.2	98.0	56.8	25.0
LnGrp LOS	E	E	E	B	A	A	F	F	C	F	E	C
Approach Vol, veh/h	2170			907			591			1914		
Approach Delay, s/veh	63.0			9.4			83.6			48.0		
Approach LOS	E			A			F			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.1	28.6	70.4	57.4	12.4	37.3	32.0	95.8				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	16.3	* 24	13.6	* 52	8.0	32.2	29.6	35.6				
Max Q Clear Time (g_c+1/3), s	119.4	25.6	9.3	52.4	8.9	31.2	26.7	11.3				
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.9	0.8	3.8				

Intersection Summary

HCM 6th Ctrl Delay	51.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	1404	96	43	190	0	0	0	0	334	571	582
Future Volume (veh/h)	0	1404	96	43	190	0	0	0	0	334	571	582
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1494	102	46	202	0				355	607	619
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2185	148	71	2553	0				418	775	913
Arrive On Green	0.00	0.65	0.65	0.04	0.72	0.00				0.33	0.33	0.33
Sat Flow, veh/h	0	3469	229	1781	3647	0				1256	2329	2744
Grp Volume(v), veh/h	0	783	813	46	202	0				511	451	619
Grp Sat Flow(s),veh/h/ln	0	1777	1828	1781	1777	0				1808	1777	1372
Q Serve(g_s), s	0.0	38.9	39.5	3.6	2.4	0.0				36.8	31.8	27.2
Cycle Q Clear(g_c), s	0.0	38.9	39.5	3.6	2.4	0.0				36.8	31.8	27.2
Prop In Lane	0.00		0.13	1.00		0.00				0.69		1.00
Lane Grp Cap(c), veh/h	0	1150	1184	71	2553	0				602	591	913
V/C Ratio(X)	0.00	0.68	0.69	0.65	0.08	0.00				0.85	0.76	0.68
Avail Cap(c_a), veh/h	0	1150	1184	85	2553	0				602	591	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.20	0.20	0.80	0.80	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	15.6	15.7	66.3	5.9	0.0				43.4	41.8	40.2
Incr Delay (d2), s/veh	0.0	0.7	0.7	5.6	0.0	0.0				14.0	9.0	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.7	15.4	1.7	0.8	0.0				18.9	15.6	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.2	16.3	71.8	5.9	0.0				57.4	50.8	44.3
LnGrp LOS	A	B	B	E	A	A				E	D	D
Approach Vol, veh/h		1596			248						1581	
Approach Delay, s/veh		16.3			18.2						50.4	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	0.0	97.8		52.0		107.8						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	0.0	* 72		46.6		81.4						
Max Q Clear Time (g_c+I1), s	0.0	41.5		38.8		4.4						
Green Ext Time (p_c), s	0.0	3.8		2.4		0.4						

Intersection Summary

HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	↑↑
Traffic Volume (veh/h)	0	483	0	0	1882	312
Future Volume (veh/h)	0	483	0	0	1882	312
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	514			2002	332
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3956	643
Arrive On Green	0.00	0.00			0.89	0.89
Sat Flow, veh/h	0				4593	720
Grp Volume(v), veh/h	0.0				1531	803
Grp Sat Flow(s),veh/h/ln					1702	1741
Q Serve(g_s), s					3.7	3.9
Cycle Q Clear(g_c), s					3.7	3.9
Prop In Lane						0.41
Lane Grp Cap(c), veh/h					3043	1556
V/C Ratio(X)					0.50	0.52
Avail Cap(c_a), veh/h					4374	2237
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.4	0.4
Incr Delay (d2), s/veh					0.1	0.3
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	0.7
LnGrp LOS					A	A
Approach Vol, veh/h					2334	
Approach Delay, s/veh					0.6	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					42.4	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					54.5	
Max Q Clear Time (g_c+I1), s					5.9	
Green Ext Time (p_c), s					32.1	
Intersection Summary						
HCM 6th Ctrl Delay			0.6			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

2024 Conditions

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	201	95	209	175	75	98	126	172	81	105	72
Future Volume (veh/h)	35	201	95	209	175	75	98	126	172	81	105	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	214	101	222	186	80	104	134	183	86	112	77
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	1314	659	308	808	635	134	759	469	112	715	309
Arrive On Green	0.03	0.37	0.37	0.09	0.43	0.43	0.08	0.21	0.21	0.06	0.20	0.20
Sat Flow, veh/h	1781	3554	1461	3456	1870	1471	1781	3554	1536	1781	3554	1534
Grp Volume(v), veh/h	37	214	101	222	186	80	104	134	183	86	112	77
Grp Sat Flow(s),veh/h/ln	1781	1777	1461	1728	1870	1471	1781	1777	1536	1781	1777	1534
Q Serve(g_s), s	1.8	3.6	3.6	5.5	5.5	2.9	5.1	2.7	8.3	4.2	2.3	3.7
Cycle Q Clear(g_c), s	1.8	3.6	3.6	5.5	5.5	2.9	5.1	2.7	8.3	4.2	2.3	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1314	659	308	808	635	134	759	469	112	715	309
V/C Ratio(X)	0.77	0.16	0.15	0.72	0.23	0.13	0.78	0.18	0.39	0.77	0.16	0.25
Avail Cap(c_a), veh/h	605	1609	780	1174	847	666	605	1609	837	605	1609	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	18.7	14.6	39.2	15.8	15.1	40.1	28.4	24.4	40.8	29.1	29.7
Incr Delay (d2), s/veh	9.2	0.1	0.1	1.2	0.1	0.0	3.7	0.1	0.5	4.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.4	1.2	2.4	2.3	0.9	2.3	1.2	3.0	1.9	1.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	18.7	14.8	40.4	15.9	15.1	43.8	28.5	24.9	45.0	29.1	29.8
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		352			488			421			275	
Approach Delay, s/veh		21.1			26.9			30.7			34.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	38.6	12.0	24.5	7.8	44.1	10.9	25.6				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	7.5	5.6	7.1	5.7	3.8	7.5	6.2	10.3				
Green Ext Time (p_c), s	0.4	2.2	0.1	0.6	0.0	0.9	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	↔
Traffic Volume (veh/h)	9	0	8	26	0	37	77	305	30	70	295	32
Future Volume (veh/h)	9	0	8	26	0	37	77	305	30	70	295	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	9	28	0	40	84	332	33	76	321	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	43	126	463	0	370	116	1513	147	108	1479	157
Arrive On Green	0.18	0.00	0.18	0.18	0.00	0.18	0.06	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	548	243	712	1393	0	1547	1781	4715	458	1781	4669	497
Grp Volume(v), veh/h	19	0	0	28	0	40	84	238	127	76	232	124
Grp Sat Flow(s), veh/h/ln	1504	0	0	1393	0	1547	1781	1702	1769	1781	1702	1762
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.7	1.5	1.7	1.8	1.4	1.7	1.7
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.5	0.0	0.7	1.5	1.7	1.8	1.4	1.7	1.7
Prop In Lane	0.53		0.47	1.00		1.00	1.00		0.26	1.00		0.28
Lane Grp Cap(c), veh/h	431	0	0	463	0	370	116	1093	568	108	1078	558
V/C Ratio(X)	0.04	0.00	0.00	0.06	0.00	0.11	0.73	0.22	0.22	0.70	0.22	0.22
Avail Cap(c_a), veh/h	1895	0	0	1869	0	1954	1604	6131	3186	1604	6131	3173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	11.5	0.0	9.9	15.3	8.3	8.3	15.4	8.3	8.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.1	0.3	3.1	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.1	0.0	0.2	0.6	0.5	0.5	0.6	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	0.0	0.0	11.5	0.0	10.0	18.5	8.4	8.5	18.5	8.5	8.6
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		19			68			449			432	
Approach Delay, s/veh		11.4			10.6			10.3			10.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	16.1		10.8	6.6	16.0		10.8				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.4	3.8		2.3	3.5	3.7		2.7				
Green Ext Time (p_c), s	0.1	3.5		0.0	0.1	2.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay 10.3

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	10	27	40	49	13	334	629	110	41	432	190
Future Volume (veh/h)	18	10	27	40	49	13	334	629	110	41	432	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.75	1.00		0.75	1.00		0.94	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	11	29	43	53	14	359	676	118	44	465	204
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	488	311	55	484	308	394	1684	704	57	685	297
Arrive On Green	0.03	0.26	0.26	0.03	0.26	0.26	0.22	0.47	0.47	0.03	0.29	0.29
Sat Flow, veh/h	1781	1870	1192	1781	1870	1188	1781	3554	1486	1781	2337	1013
Grp Volume(v), veh/h	19	11	29	43	53	14	359	676	118	44	352	317
Grp Sat Flow(s),veh/h/ln	1781	1870	1192	1781	1870	1188	1781	1777	1486	1781	1777	1573
Q Serve(g_s), s	1.2	0.5	2.1	2.8	2.5	1.0	22.8	14.3	5.3	2.8	20.2	20.6
Cycle Q Clear(g_c), s	1.2	0.5	2.1	2.8	2.5	1.0	22.8	14.3	5.3	2.8	20.2	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	59	488	311	55	484	308	394	1684	704	57	521	461
V/C Ratio(X)	0.32	0.02	0.09	0.77	0.11	0.05	0.91	0.40	0.17	0.77	0.68	0.69
Avail Cap(c_a), veh/h	462	488	311	462	485	308	462	1842	770	462	921	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	31.8	32.4	55.7	32.7	32.2	44.0	19.8	17.4	55.6	36.1	36.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	8.3	0.0	0.0	21.3	0.2	0.1	8.1	4.2	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.6	1.4	1.1	0.3	12.3	5.9	1.8	1.4	9.3	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	31.8	32.4	64.0	32.8	32.2	65.3	20.0	17.5	63.7	40.2	41.1
LnGrp LOS	E	C	C	E	C	C	E	B	B	E	D	D
Approach Vol, veh/h	59			110			1153			713		
Approach Delay, s/veh	39.9			44.9			33.8			42.1		
Approach LOS	D			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	63.6	8.0	35.1	30.0	42.7	8.2	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.8	16.3	4.8	4.1	24.8	22.6	3.2	4.5				
Green Ext Time (p_c), s	0.0	7.7	0.0	0.1	0.8	11.2	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 37.5

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	156	17	146	132	0	0	0	0	192	24	39
Future Volume (veh/h)	0	156	17	146	132	0	0	0	0	192	24	39
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	171	19	160	145	0				230	0	43
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	222	444	195	345	659	0				974	0	624
Arrive On Green	0.00	0.12	0.12	0.19	0.19	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1560	1781	3572	0				3563	0	1557
Grp Volume(v), veh/h	0	171	19	160	145	0				230	0	43
Grp Sat Flow(s), veh/h/ln	1781	1777	1560	1781	1702	0				1781	0	1557
Q Serve(g_s), s	0.0	1.6	0.4	2.8	1.3	0.0				1.8	0.0	0.6
Cycle Q Clear(g_c), s	0.0	1.6	0.4	2.8	1.3	0.0				1.8	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	222	444	195	345	659	0				974	0	624
V/C Ratio(X)	0.00	0.39	0.10	0.46	0.22	0.00				0.24	0.00	0.07
Avail Cap(c_a), veh/h	3008	6001	2634	3008	5749	0				3510	0	1732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.3	13.8	12.7	12.1	0.0				10.0	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.1	0.2	0.0				0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.5	0.1	0.9	0.3	0.0				0.5	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.5	13.9	13.8	12.3	0.0				10.1	0.0	6.6
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	190			305			273					
Approach Delay, s/veh	14.4			13.1			9.5					
Approach LOS	B			B			A					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	8.4			15.9			11.2					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	3.6			3.8			4.8					
Green Ext Time (p_c), s	0.7			0.5			2.1					

Intersection Summary

HCM 6th Ctrl Delay 12.1

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	212	0	0	260	324	34	6	129	21	0	283
Future Volume (veh/h)	84	212	0	0	260	324	34	6	129	21	0	283
Initial Q (Qb), 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		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	236	0	0	289	360	38	7	143	23	0	314
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	124	1545	0	0	549	485	240	10	200	27	0	365
Arrive On Green	0.07	0.43	0.00	0.00	0.31	0.31	0.13	0.13	0.13	0.25	0.00	0.25
Sat Flow, veh/h	1781	3647	0	0	1870	1570	1781	73	1486	108	0	1480
Grp Volume(v), veh/h	93	236	0	0	289	360	38	0	150	337	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1570	1781	0	1559	1588	0	0
Q Serve(g_s), s	4.1	3.2	0.0	0.0	10.8	16.5	1.5	0.0	7.4	16.3	0.0	0.0
Cycle Q Clear(g_c), s	4.1	3.2	0.0	0.0	10.8	16.5	1.5	0.0	7.4	16.3	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.95	0.07		0.93
Lane Grp Cap(c), veh/h	124	1545	0	0	549	485	240	0	210	391	0	0
V/C Ratio(X)	0.75	0.15	0.00	0.00	0.53	0.74	0.16	0.00	0.71	0.86	0.00	0.00
Avail Cap(c_a), veh/h	665	2654	0	0	1327	1172	887	0	776	791	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	36.7	13.8	0.0	0.0	22.9	24.9	30.7	0.0	33.3	29.0	0.0	0.0
Incr Delay (d2), s/veh	10.5	0.0	0.0	0.0	0.9	2.7	0.1	0.0	1.7	2.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.1	0.0	0.0	4.2	5.9	0.6	0.0	2.8	6.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	13.8	0.0	0.0	23.8	27.6	30.9	0.0	35.0	31.2	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	329				649		188				337	
Approach Delay, s/veh	23.2				25.9		34.1				31.2	
Approach LOS	C				C		C				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	39.3		23.8		10.1		29.2		17.2			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	5.2		18.3		6.1		18.5		9.4			
Green Ext Time (p_c), s	0.9		1.5		0.3		5.3		0.7			

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	331	108	302	405	0	0	0	0	384	242	190
Future Volume (veh/h)	0	331	108	302	405	0	0	0	0	384	242	190
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	338	110	308	413	0				392	247	194
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1904	846	388	2489	0				652	342	283
Arrive On Green	0.00	0.54	0.54	0.22	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1546
Grp Volume(v), veh/h	0	338	110	308	413	0				392	247	194
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1546
Q Serve(g_s), s	0.0	4.1	2.9	7.1	0.0	0.0				8.5	10.4	9.8
Cycle Q Clear(g_c), s	0.0	4.1	2.9	7.1	0.0	0.0				8.5	10.4	9.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1904	846	388	2489	0				652	342	283
V/C Ratio(X)	0.00	0.18	0.13	0.79	0.17	0.00				0.60	0.72	0.69
Avail Cap(c_a), veh/h	0	1904	846	703	2489	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.0	9.7	31.7	0.0	0.0				31.5	32.3	32.1
Incr Delay (d2), s/veh	0.0	0.2	0.3	1.4	0.1	0.0				0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.4	0.9	2.6	0.0	0.0				3.6	4.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.2	10.0	33.0	0.1	0.0				31.8	33.4	33.2
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		448			721						833	
Approach Delay, s/veh		10.2			14.2						32.6	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.8	49.9		20.3		63.7						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	19.1	6.1		12.4		2.0						
Green Ext Time (p_c), s	0.4	2.4		2.0		3.0						

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	202	524	0	0	568	555	131	245	22	0	0	0
Future Volume (veh/h)	202	524	0	0	568	555	131	245	22	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	204	529	0	0	574	561	132	247	22			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1249	2680	0	0	1189	519	210	435	39			
Arrive On Green	0.72	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1626	3373	299			
Grp Volume(v), veh/h	204	529	0	0	574	561	145	123	133			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1553	1789	1702	1806			
Q Serve(g_s), s	1.6	0.0	0.0	0.0	10.8	28.1	6.5	5.7	5.8			
Cycle Q Clear(g_c), s	1.6	0.0	0.0	0.0	10.8	28.1	6.5	5.7	5.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.91		0.17			
Lane Grp Cap(c), veh/h	1249	2680	0	0	1189	519	231	220	233			
V/C Ratio(X)	0.16	0.20	0.00	0.00	0.48	1.08	0.63	0.56	0.57			
Avail Cap(c_a), veh/h	1249	2680	0	0	1189	519	598	569	604			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.6	0.0	0.0	0.0	22.2	28.0	34.7	34.3	34.4			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.4	62.8	1.1	0.8	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.0	0.0	4.3	18.4	2.8	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.2	0.0	0.0	23.6	90.8	35.7	35.2	35.2			
LnGrp LOS	A	A	A	A	C	F	D	D	D			
Approach Vol, veh/h	733			1135			401					
Approach Delay, s/veh	2.3			56.8			35.4					
Approach LOS	A			E			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.3			35.3			33.0			15.7		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			3.6			30.1			8.5		
Green Ext Time (p_c), s	4.3			0.4			0.0			1.4		

Intersection Summary

HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	17	44	13	863	19	0	0	0
Future Volume (veh/h)	0	0	0	0	17	44	13	863	19	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	56	17	1106	24			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	78	123	3038	65			
Arrive On Green				0.00	0.07	0.07	0.61	0.61	0.61			
Sat Flow, veh/h				0	465	1185	23	4962	107			
Grp Volume(v), veh/h				0	0	78	421	348	378			
Grp Sat Flow(s),veh/h/ln				0	0	1650	1863	1549	1679			
Q Serve(g_s), s				0.0	0.0	1.6	0.0	3.9	3.9			
Cycle Q Clear(g_c), s				0.0	0.0	1.6	3.9	3.9	3.9			
Prop In Lane				0.00		0.72	0.04		0.06			
Lane Grp Cap(c), veh/h				0	0	108	1249	948	1028			
V/C Ratio(X)				0.00	0.00	0.72	0.34	0.37	0.37			
Avail Cap(c_a), veh/h				0	0	1916	3335	2697	2925			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	15.8	3.3	3.3	3.3			
Incr Delay (d2), s/veh				0.0	0.0	3.4	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.6	0.5	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	19.2	3.6	3.7	3.7			
LnGrp LOS				A	A	B	A	A	A			
Approach Vol, veh/h					78			1147				
Approach Delay, s/veh					19.2			3.6				
Approach LOS					B			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		26.7						7.8				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		5.9						3.6				
Green Ext Time (p_c), s		15.2						0.3				
Intersection Summary												
HCM 6th Ctrl Delay				4.6								
HCM 6th LOS				A								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	123	51	330	424	60	194	272	61	60	259	80
Future Volume (veh/h)	85	123	51	330	424	60	194	272	61	60	259	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	132	55	355	456	65	209	292	66	65	278	86
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	353	297	405	559	80	255	1129	243	84	678	196
Arrive On Green	0.07	0.19	0.19	0.23	0.35	0.35	0.14	0.27	0.27	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1572	1781	1600	228	1781	4183	901	1781	3900	1129
Grp Volume(v), veh/h	91	132	55	355	0	521	209	235	123	65	240	124
Grp Sat Flow(s),veh/h/ln	1781	1870	1572	1781	0	1828	1781	1702	1679	1781	1702	1625
Q Serve(g_s), s	3.6	4.4	2.1	13.7	0.0	18.5	8.1	3.9	4.1	2.6	4.5	4.8
Cycle Q Clear(g_c), s	3.6	4.4	2.1	13.7	0.0	18.5	8.1	3.9	4.1	2.6	4.5	4.8
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.54	1.00		0.69
Lane Grp Cap(c), veh/h	119	353	297	405	0	639	255	919	453	84	591	282
V/C Ratio(X)	0.77	0.37	0.19	0.88	0.00	0.82	0.82	0.26	0.27	0.77	0.41	0.44
Avail Cap(c_a), veh/h	751	1051	884	751	0	1027	751	2870	1415	751	2870	1370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	32.7	25.2	24.3	26.5	0.0	21.1	29.6	20.4	20.5	33.5	26.1	26.3
Incr Delay (d2), s/veh	3.8	0.2	0.1	2.4	0.0	2.7	2.5	0.3	0.6	5.6	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 BackOfQ(50%),veh/ln	1.6	1.9	0.8	5.9	0.0	7.9	3.5	1.5	1.6	1.2	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	25.4	24.4	29.0	0.0	23.8	32.1	20.6	21.1	39.1	26.9	28.2
LnGrp LOS	D	C	C	C	A	C	C	C	C	D	C	C
Approach Vol, veh/h	278			876			567			429		
Approach Delay, s/veh	28.9			25.9			24.9			29.2		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	24.5	20.6	18.3	14.6	17.7	9.1	29.8				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.6	6.1	15.7	6.4	10.1	6.8	5.6	20.5				
Green Ext Time (p_c), s	0.1	4.4	0.5	0.6	0.3	4.4	0.1	3.5				

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2024 with Project (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	69	191	136	247	0	0	0	0	87	1395	554
Future Volume (veh/h)	0	69	191	136	247	0	0	0	0	87	1395	554
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	78	217	155	281	0				99	1585	630
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	446	378	251	453	0				1106	2247	860
Arrive On Green	0.00	0.24	0.24	0.24	0.24	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1585	772	1985	0				1781	3617	1385
Grp Volume(v), veh/h	0	78	217	211	225	0				99	1488	727
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1055	1617	0				1781	1702	1597
Q Serve(g_s), s	0.0	3.1	11.2	15.3	11.4	0.0				2.1	27.2	29.3
Cycle Q Clear(g_c), s	0.0	3.1	11.2	18.4	11.4	0.0				2.1	27.2	29.3
Prop In Lane	0.00		1.00	0.73		0.00				1.00		0.87
Lane Grp Cap(c), veh/h	0	446	378	319	386	0				1106	2114	992
V/C Ratio(X)	0.00	0.17	0.57	0.66	0.58	0.00				0.09	0.70	0.73
Avail Cap(c_a), veh/h	0	606	514	423	524	0				1154	2206	1035
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.0	31.1	35.3	31.2	0.0				7.0	11.8	12.2
Incr Delay (d2), s/veh	0.0	0.1	0.5	1.7	1.0	0.0				0.1	1.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.4	4.3	4.7	4.5	0.0				0.7	9.4	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.1	31.6	37.0	32.2	0.0				7.1	13.0	15.3
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		295			436						2314	
Approach Delay, s/veh		30.7			34.5						13.5	
Approach LOS		C			C						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				28.8		63.8		28.8				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				13.2		31.3		20.4				
Green Ext Time (p_c), s				0.6		26.2		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			18.2									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2024 with Project (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	58	17	82	0	33	22	345	953	21	0	0	0
Future Volume (veh/h)	58	17	82	0	33	22	345	953	21	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	61	18	86	0	35	23	363	1003	22			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	315	54	1032	0	137	90	928	1851	41			
Arrive On Green	0.13	0.13	0.13	0.00	0.13	0.13	0.52	0.52	0.52			
Sat Flow, veh/h	852	413	1567	0	1044	686	1781	3553	78			
Grp Volume(v), veh/h	79	0	86	0	0	58	363	502	523			
Grp Sat Flow(s),veh/h/ln	1264	0	1567	0	0	1730	1781	1777	1854			
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	0.9	3.8	5.9	5.9			
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.0	0.0	0.9	3.8	5.9	5.9			
Prop In Lane	0.77		1.00	0.00		0.40	1.00		0.04			
Lane Grp Cap(c), veh/h	370	0	1032	0	0	228	928	926	966			
V/C Ratio(X)	0.21	0.00	0.08	0.00	0.00	0.25	0.39	0.54	0.54			
Avail Cap(c_a), veh/h	1549	0	2324	0	0	1654	1675	1671	1743			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	12.8	0.0	2.0	0.0	0.0	12.2	4.5	5.0	5.0			
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.2	0.3	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			
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.8	0.0	0.0	0.3	0.7	1.0	1.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.1	0.0	2.0	0.0	0.0	12.5	4.8	5.5	5.5			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h	165			58			1388					
Approach Delay, s/veh	7.3			12.5			5.3					
Approach LOS	A			B			A					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	20.8			10.5			10.5					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+I1), s	7.9			4.1			2.9					
Green Ext Time (p_c), s	8.4			0.7			0.2					

Intersection Summary

HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	41	37	125	7	7	43	479	124	101	572	18
Future Volume (veh/h)	24	41	37	125	7	7	43	479	124	101	572	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	45	41	137	8	8	47	526	136	111	629	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	477	223	203	414	212	212	68	2019	616	216	2131	68
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.40	0.40	0.06	0.42	0.42
Sat Flow, veh/h	1392	900	820	1308	856	856	1781	5106	1557	3456	5079	161
Grp Volume(v), veh/h	26	0	86	137	0	16	47	526	136	111	421	228
Grp Sat Flow(s),veh/h/ln	1392	0	1719	1308	0	1713	1781	1702	1557	1728	1702	1836
Q Serve(g_s), s	0.7	0.0	2.0	4.7	0.0	0.4	1.3	3.5	2.9	1.6	4.1	4.2
Cycle Q Clear(g_c), s	1.1	0.0	2.0	6.7	0.0	0.4	1.3	3.5	2.9	1.6	4.1	4.2
Prop In Lane	1.00		0.48	1.00		0.50	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	477	0	426	414	0	424	68	2019	616	216	1428	770
V/C Ratio(X)	0.05	0.00	0.20	0.33	0.00	0.04	0.69	0.26	0.22	0.51	0.29	0.30
Avail Cap(c_a), veh/h	1234	0	1360	1125	0	1354	1056	6057	1847	2050	4038	2178
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	15.1	17.7	0.0	14.5	24.0	10.3	10.1	23.0	9.7	9.7
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.0	4.6	0.1	0.3	0.7	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 BackOfQ(50%),veh/ln	0.2	0.0	0.7	1.3	0.0	0.1	0.6	1.1	0.9	0.6	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	15.2	17.9	0.0	14.5	28.6	10.4	10.4	23.7	9.8	9.9
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	A	A
Approach Vol, veh/h	112				153		709		760			
Approach Delay, s/veh	15.1				17.5		11.6		11.9			
Approach LOS	B				B		B		B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.6	25.7	17.3		6.3	26.9	17.3					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	13.6	5.5	4.0		3.3	6.2	8.7					
Green Ext Time (p_c), s	0.2	8.2	0.4		0.0	4.6	0.3					

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2235	10	0	2415	0	3
Future Vol, veh/h	2235	10	0	2415	0	3
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	2456	11	0	2654	0	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1234
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	144
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	144
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		30.6	
HCM LOS					D	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	144	-	-	-		
HCM Lane V/C Ratio	0.023	-	-	-		
HCM Control Delay (s)	30.6	-	-	-		
HCM Lane LOS	D	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	894	1479	2081	56	28	82
Future Volume (veh/h)	894	1479	2081	56	28	82
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1016	1681	2365	0	32	93
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	867	4169	2732		133	118
Arrive On Green	0.25	0.84	0.55	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1016	1681	2365	0	32	93
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	29.6	9.8	48.1	0.0	2.0	6.8
Cycle Q Clear(g_c), s	29.6	9.8	48.1	0.0	2.0	6.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	867	4169	2732		133	118
V/C Ratio(X)	1.17	0.40	0.87		0.24	0.79
Avail Cap(c_a), veh/h	867	4169	2732		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.47	0.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	2.4	22.9	0.0	51.4	53.7
Incr Delay (d2), s/veh	89.6	0.3	1.9	0.0	0.3	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.9	1.6	17.4	0.0	0.9	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	133.8	2.7	24.9	0.0	51.8	57.9
LnGrp LOS	F	A	C		D	E
Approach Vol, veh/h		2697	2365	A	125	
Approach Delay, s/veh		52.1	24.9		56.4	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.0		14.0	34.0	70.0
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	29.6	* 44
Max Q Clear Time (g_c+I1), s		11.8		8.8	31.6	50.1
Green Ext Time (p_c), s		51.2		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			39.8			
HCM 6th LOS			D			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2024 with Project (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑		↰	↑↑		↰	↑↑↑		↰	↑↑↑	↰
Traffic Volume (veh/h)	309	700	63	48	990	48	127	237	68	42	134	497
Future Volume (veh/h)	309	700	63	48	990	48	127	237	68	42	134	497
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	332	753	68	52	1065	52	137	255	73	45	144	534
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	355	1542	139	155	1248	61	160	1054	280	58	1065	612
Arrive On Green	0.20	0.47	0.47	0.12	0.48	0.48	0.09	0.27	0.27	0.03	0.21	0.21
Sat Flow, veh/h	1781	3291	297	1781	3448	168	1781	3962	1053	1781	5106	1417
Grp Volume(v), veh/h	332	406	415	52	549	568	137	216	112	45	144	534
Grp Sat Flow(s),veh/h/ln	1781	1777	1812	1781	1777	1839	1781	1702	1612	1781	1702	1417
Q Serve(g_s), s	25.7	22.1	22.1	3.8	38.0	38.1	10.6	7.0	7.7	3.5	3.2	29.2
Cycle Q Clear(g_c), s	25.7	22.1	22.1	3.8	38.0	38.1	10.6	7.0	7.7	3.5	3.2	29.2
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.65	1.00		1.00
Lane Grp Cap(c), veh/h	355	833	849	155	643	666	160	905	429	58	1065	612
V/C Ratio(X)	0.93	0.49	0.49	0.33	0.85	0.85	0.85	0.24	0.26	0.77	0.14	0.87
Avail Cap(c_a), veh/h	382	833	849	155	643	666	198	905	429	244	1065	612
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	0.99	0.99	0.99	0.96	0.96	0.96
Uniform Delay (d), s/veh	55.1	25.6	25.6	58.2	33.0	33.0	62.8	40.3	40.5	67.2	45.1	39.0
Incr Delay (d2), s/veh	29.0	2.0	2.0	5.1	12.1	11.8	21.2	0.2	0.4	7.6	0.1	13.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	9.6	9.8	1.9	16.8	17.3	5.7	3.0	3.1	1.7	1.4	18.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.1	27.7	27.6	63.2	45.1	44.8	84.0	40.4	40.9	74.8	45.2	52.0
LnGrp LOS	F	C	C	E	D	D	F	D	D	E	D	D
Approach Vol, veh/h	1153			1169			465			723		
Approach Delay, s/veh	43.9			45.8			53.4			52.1		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	42.2	18.0	70.8	17.0	34.2	32.3	56.5				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	15.6	29.2	30.0	45.6				
Max Q Clear Time (g_c+15), s	15.5	9.7	5.8	24.1	12.6	31.2	27.7	40.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	8.2	0.0	0.0	0.3	2.9				

Intersection Summary

HCM 6th Ctrl Delay	47.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	708	72	28	174	0	0	0	0	179	212	934
Future Volume (veh/h)	0	708	72	28	174	0	0	0	0	179	212	934
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	796	81	31	196	0				201	238	1049
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1291	131	56	1635	0				809	1699	707
Arrive On Green	0.00	0.79	0.79	0.03	0.46	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3344	331	1781	3647	0				1781	3741	1556
Grp Volume(v), veh/h	0	435	442	31	196	0				201	238	1049
Grp Sat Flow(s),veh/h/ln	0	1777	1805	1781	1777	0				1781	1870	1556
Q Serve(g_s), s	0.0	13.8	13.8	2.4	4.4	0.0				9.7	5.2	63.6
Cycle Q Clear(g_c), s	0.0	13.8	13.8	2.4	4.4	0.0				9.7	5.2	63.6
Prop In Lane	0.00		0.18	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	706	717	56	1635	0				809	1699	707
V/C Ratio(X)	0.00	0.62	0.62	0.55	0.12	0.00				0.25	0.14	1.48
Avail Cap(c_a), veh/h	0	706	717	97	1635	0				809	1699	707
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.92	0.83	0.83	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.1	10.1	66.8	21.6	0.0				23.5	22.3	38.2
Incr Delay (d2), s/veh	0.0	3.7	3.6	2.6	0.1	0.0				0.7	0.2	225.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	4.0	1.1	1.9	0.0				4.4	2.4	68.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.8	13.7	69.4	21.7	0.0				24.2	22.4	263.4
LnGrp LOS	A	B	B	E	C	A				C	C	F
Approach Vol, veh/h		877			227						1488	
Approach Delay, s/veh		13.8			28.2						192.6	
Approach LOS		B			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	8	62.2		69.0		71.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.6	* 54		63.6		64.4						
Max Q Clear Time (g_c+I14), s	14.4	15.8		65.6		6.4						
Green Ext Time (p_c), s	0.0	1.7		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	117.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2024 with Project (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↱			
Traffic Volume (veh/h)	631	344	0	0	176	139	45	104	35	0	0	0
Future Volume (veh/h)	631	344	0	0	176	139	45	104	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	671	366	0	0	187	148	48	111	37			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1356	1481	0	0	652	486	88	220	132			
Arrive On Green	0.39	0.79	0.00	0.00	0.34	0.34	0.09	0.09	0.09			
Sat Flow, veh/h	3456	1870	0	0	2024	1438	1029	2567	1539			
Grp Volume(v), veh/h	671	366	0	0	171	164	85	74	37			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1592	1819	1777	1539			
Q Serve(g_s), s	11.7	4.1	0.0	0.0	5.6	6.1	3.6	3.2	1.8			
Cycle Q Clear(g_c), s	11.7	4.1	0.0	0.0	5.6	6.1	3.6	3.2	1.8			
Prop In Lane	1.00		0.00	0.00		0.90	0.57		1.00			
Lane Grp Cap(c), veh/h	1356	1481	0	0	601	538	156	153	132			
V/C Ratio(X)	0.49	0.25	0.00	0.00	0.29	0.30	0.54	0.49	0.28			
Avail Cap(c_a), veh/h	1356	1481	0	0	601	538	480	469	406			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	18.3	2.2	0.0	0.0	19.4	19.5	35.1	34.9	34.2			
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.0	0.1	0.1	1.1	0.9	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			
%ile BackOfQ(50%),veh/ln	4.3	0.7	0.0	0.0	2.2	2.1	1.6	1.4	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	2.5	0.0	0.0	19.5	19.7	36.1	35.7	34.7			
LnGrp LOS	B	A	A	A	B	B	D	D	C			
Approach Vol, veh/h	1037			335			196					
Approach Delay, s/veh	12.9			19.6			35.7					
Approach LOS	B			B			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.2			36.3			31.9			11.8		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	49.1			23.6			* 21			21.1		
Max Q Clear Time (g_c+I1), s	6.1			13.7			8.1			5.6		
Green Ext Time (p_c), s	1.3			1.9			1.0			0.5		

Intersection Summary

HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	99	1665	514	0	0	1476
Future Volume (veh/h)	99	1665	514	0	0	1476
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	106	0	553	0	0	1587
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	156		3181	0	259	5173
Arrive On Green	0.09	0.00	0.64	0.00	0.00	0.82
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	106	0	553	0	0	1587
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	6.4	0.0	5.0	0.0	0.0	6.6
Cycle Q Clear(g_c), s	6.4	0.0	5.0	0.0	0.0	6.6
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	156		3181	0	259	5173
V/C Ratio(X)	0.68		0.17	0.00	0.00	0.31
Avail Cap(c_a), veh/h	486		3181	0	742	5173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.00	0.87	0.00	0.00	0.92
Uniform Delay (d), s/veh	48.7	0.0	8.1	0.0	0.0	2.3
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	1.6	0.0	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.0	0.0	8.1	0.0	0.0	2.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	106	A	553			1587
Approach Delay, s/veh	50.0		8.1			2.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.4	75.1			95.5	14.5
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.8	20.0			70.2	30.0
Max Q Clear Time (g_c+I10), s	10.6	7.0			8.6	8.4
Green Ext Time (p_c), s	0.0	3.8			23.0	0.1

Intersection Summary

HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2024 with Project (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	241	1661	131	111	270	0	0	173	25
Future Volume (veh/h)	0	0	0	241	1661	131	111	270	0	0	173	25
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				256	1767	139	118	287	0	0	184	27
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				322	2376	191	147	1441	0	0	630	87
Arrive On Green				0.18	0.18	0.18	0.17	0.56	0.00	0.00	0.14	0.14
Sat Flow, veh/h				595	4392	353	1781	5274	0	0	4621	612
Grp Volume(v), veh/h				791	663	707	118	287	0	0	138	73
Grp Sat Flow(s),veh/h/ln				1841	1702	1798	1781	1702	0	0	1702	1661
Q Serve(g_s), s				45.3	40.4	40.8	7.0	3.0	0.0	0.0	4.0	4.4
Cycle Q Clear(g_c), s				45.3	40.4	40.8	7.0	3.0	0.0	0.0	4.0	4.4
Prop In Lane				0.32		0.20	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				996	921	973	147	1441	0	0	482	235
V/C Ratio(X)				0.79	0.72	0.73	0.80	0.20	0.00	0.00	0.29	0.31
Avail Cap(c_a), veh/h				996	921	973	253	1796	0	0	532	260
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.68	0.68	0.68	0.68	0.68	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				39.3	37.3	37.5	45.1	17.8	0.0	0.0	42.2	42.4
Incr Delay (d2), s/veh				4.5	3.3	3.3	2.6	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 BackOfQ(50%),veh/ln				23.5	19.2	20.5	3.0	1.1	0.0	0.0	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.9	40.7	40.8	47.7	17.9	0.0	0.0	42.5	42.9
LnGrp LOS				D	D	D	D	B	A	A	D	D
Approach Vol, veh/h					2162			405			211	
Approach Delay, s/veh					41.9			26.6			42.6	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.0	22.0		65.4	37.0				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				15.6	* 17		59.5	38.7				
Max Q Clear Time (g_c+I1), s				9.0	6.4		47.3	5.0				
Green Ext Time (p_c), s				0.1	0.7		9.0	2.2				

Intersection Summary

HCM 6th Ctrl Delay	39.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	273	1999	0	0	0	0	0	172	57
Future Volume (veh/h)	0	0	0	273	1999	0	0	0	0	0	172	57
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				287	2104	0				0	181	60
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				423	3334	0				0	736	221
Arrive On Green				0.24	0.24	0.00				0.00	0.19	0.19
Sat Flow, veh/h				590	4823	0				0	4007	1154
Grp Volume(v), veh/h				895	1496	0				0	158	83
Grp Sat Flow(s),veh/h/ln				1841	1702	0				0	1702	1589
Q Serve(g_s), s				48.6	43.2	0.0				0.0	4.3	4.9
Cycle Q Clear(g_c), s				48.6	43.2	0.0				0.0	4.3	4.9
Prop In Lane				0.32		0.00				0.00		0.73
Lane Grp Cap(c), veh/h				1319	2439	0				0	653	305
V/C Ratio(X)				0.68	0.61	0.00				0.00	0.24	0.27
Avail Cap(c_a), veh/h				1319	2439	0				0	653	305
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.5	28.4	0.0				0.0	37.7	37.9
Incr Delay (d2), s/veh				2.8	1.2	0.0				0.0	0.9	2.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				24.9	20.0	0.0				0.0	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.3	29.6	0.0				0.0	38.6	40.1
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2391						241	
Approach Delay, s/veh					31.0						39.1	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.0		84.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.1		78.8						
Max Q Clear Time (g_c+I1), s				6.9		50.6						
Green Ext Time (p_c), s				0.3		4.4						
Intersection Summary												
HCM 6th Ctrl Delay											31.7	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2198	122	71	95	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2198	122	71	95	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2338	130	76	101	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3575	197	265	389	0			
Arrive On Green				0.00	0.24	0.24	0.18	0.18	0.00			
Sat Flow, veh/h				0	5115	272	1448	2220	0			
Grp Volume(v), veh/h				0	1602	866	94	83	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1815	1798	1777	0			
Q Serve(g_s), s				0.0	46.7	47.4	5.0	4.4	0.0			
Cycle Q Clear(g_c), s				0.0	46.7	47.4	5.0	4.4	0.0			
Prop In Lane				0.00		0.15	0.81		0.00			
Lane Grp Cap(c), veh/h				0	2460	1312	329	325	0			
V/C Ratio(X)				0.00	0.65	0.66	0.29	0.25	0.00			
Avail Cap(c_a), veh/h				0	2460	1312	329	325	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	29.4	29.7	38.8	38.5	0.0			
Incr Delay (d2), s/veh				0.0	1.4	2.6	2.2	1.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	21.6	23.9	2.4	2.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	30.7	32.3	41.0	40.4	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2468			177				
Approach Delay, s/veh					31.3			40.7				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.0		25.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						79.5		20.1				
Max Q Clear Time (g_c+I1), s						49.4		7.0				
Green Ext Time (p_c), s						23.8		0.7				
Intersection Summary												
HCM 6th Ctrl Delay											31.9	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	334	2349	0	0	0	0	0	218	39
Future Volume (veh/h)	0	0	0	334	2349	0	0	0	0	0	218	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				341	2397	0				0	222	40
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				428	3248	0				0	733	312
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				610	4802	0				0	3647	1514
Grp Volume(v), veh/h				1028	1710	0				0	222	40
Grp Sat Flow(s),veh/h/ln				1840	1702	0				0	1777	1514
Q Serve(g_s), s				57.9	50.9	0.0				0.0	5.8	2.4
Cycle Q Clear(g_c), s				57.9	50.9	0.0				0.0	5.8	2.4
Prop In Lane				0.33		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1290	2386	0				0	733	312
V/C Ratio(X)				0.80	0.72	0.00				0.00	0.30	0.13
Avail Cap(c_a), veh/h				1290	2386	0				0	733	312
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				34.9	32.2	0.0				0.0	37.0	35.6
Incr Delay (d2), s/veh				5.2	1.9	0.0				0.0	1.1	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				30.3	23.7	0.0				0.0	2.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.1	34.1	0.0				0.0	38.0	36.4
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2738						262	
Approach Delay, s/veh					36.4						37.8	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				7.8		59.9						
Green Ext Time (p_c), s				1.3		15.6						
Intersection Summary												
HCM 6th Ctrl Delay											36.5	
HCM 6th LOS											D	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2638	83	49	47	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2638	83	49	47	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2720	86	51	48	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3720	116	299	319	0			
Arrive On Green				0.00	0.73	0.73	0.17	0.17	0.00			
Sat Flow, veh/h				0	5251	159	1721	1933	0			
Grp Volume(v), veh/h				0	1813	993	53	46	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1838	1784	1777	0			
Q Serve(g_s), s				0.0	33.6	34.7	2.8	2.4	0.0			
Cycle Q Clear(g_c), s				0.0	33.6	34.7	2.8	2.4	0.0			
Prop In Lane				0.00		0.09	0.96		0.00			
Lane Grp Cap(c), veh/h				0	2491	1345	310	309	0			
V/C Ratio(X)				0.00	0.73	0.74	0.17	0.15	0.00			
Avail Cap(c_a), veh/h				0	2491	1345	310	309	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	8.5	8.6	38.7	38.6	0.0			
Incr Delay (d2), s/veh				0.0	1.9	3.7	1.2	1.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	10.9	12.8	1.3	1.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	10.4	12.3	39.9	39.6	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2806			99				
Approach Delay, s/veh					11.0			39.8				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						86.0		24.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.5		19.1				
Max Q Clear Time (g_c+I1), s						36.7		4.8				
Green Ext Time (p_c), s						36.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay											12.0	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	133	476	1	99	0	0	0	17
Future Vol, veh/h	0	0	0	0	133	476	1	99	0	0	0	17
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	137	491	1	102	0	0	0	18
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	90	633	-	-	-	340
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	90	633	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	885	395	0	0	0	656
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	907	472	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	861	393	-	-	-	653
Mov Cap-2 Maneuver				-	-	-	861	393	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	883	470	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		17.3		10.7				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	393	-	-	653								
HCM Lane V/C Ratio	0.26	-	-	0.027								
HCM Control Delay (s)	17.3	-	-	10.7								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	508	83	1032	613	0
Future Volume (veh/h)	0	0	0	0	0	0	0	508	83	1032	613	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	577	94	1173	697	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1422	443	3152	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.29	0.29	0.83	1.00	0.00
Sat Flow, veh/h		0					0	5149	1554	5023	1826	0
Grp Volume(v), veh/h		0.0					0	577	94	1173	697	0
Grp Sat Flow(s),veh/h/ln							0	1662	1554	1674	1826	0
Q Serve(g_s), s							0.0	10.3	5.1	6.2	0.0	0.0
Cycle Q Clear(g_c), s							0.0	10.3	5.1	6.2	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1422	443	3152	1740	0
V/C Ratio(X)							0.00	0.41	0.21	0.37	0.40	0.00
Avail Cap(c_a), veh/h							0	1422	443	3152	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.95	0.95	0.00
Uniform Delay (d), s/veh							0.0	31.8	29.9	3.9	0.0	0.0
Incr Delay (d2), s/veh							0.0	0.5	0.6	0.1	0.7	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	4.0	1.9	1.5	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	32.3	30.5	4.0	0.7	0.0
LnGrp LOS							A	C	C	A	A	A
Approach Vol, veh/h								671			1870	
Approach Delay, s/veh								32.0			2.7	
Approach LOS								C			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	73.4	36.6					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					49.0					
Max Q Clear Time (g_c+I1), s	8.2	12.3					2.0					
Green Ext Time (p_c), s	5.1	6.1					6.9					
Intersection Summary												
HCM 6th Ctrl Delay			10.5									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	54	988	63	0	0	0	0	320	194	89	310	0
Future Volume (veh/h)	54	988	63	0	0	0	0	320	194	89	310	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	59	1086	69				0	352	213	98	341	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	156	3068	949				0	618	276	128	1499	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.14	0.59	0.00
Sat Flow, veh/h	255	5006	1549				0	3572	1521	1781	5274	0
Grp Volume(v), veh/h	429	716	69				0	352	213	98	341	0
Grp Sat Flow(s),veh/h/ln	1858	1702	1549				0	1702	1521	1781	1702	0
Q Serve(g_s), s	22.0	19.8	4.0				0.0	10.4	14.7	5.8	3.5	0.0
Cycle Q Clear(g_c), s	22.0	19.8	4.0				0.0	10.4	14.7	5.8	3.5	0.0
Prop In Lane	0.14		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1138	2086	949				0	618	276	128	1499	0
V/C Ratio(X)	0.38	0.34	0.07				0.00	0.57	0.77	0.77	0.23	0.00
Avail Cap(c_a), veh/h	1138	2086	949				0	931	416	350	2581	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.75	0.75	0.75				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	25.7	24.9	18.6				0.0	41.1	42.8	46.2	16.8	0.0
Incr Delay (d2), s/veh	0.7	0.3	0.1				0.0	0.9	5.5	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	1.1	9.1	1.4				0.0	4.4	5.8	2.5	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	25.2	18.7				0.0	42.0	48.3	49.5	16.8	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1214							565		439		
Approach Delay, s/veh	25.3							44.4		24.1		
Approach LOS	C							D		C		
Timer - Assigned Phs	2		4				7		8			
Phs Duration (G+Y+Rc), s	72.3		37.7				12.3		25.4			
Change Period (Y+Rc), s	4.9		5.4				4.4		* 5.4			
Max Green Setting (Gmax), s	44.1		55.6				21.6		* 30			
Max Q Clear Time (g_c+I1), s	24.0		5.5				7.8		16.7			
Green Ext Time (p_c), s	11.3		1.9				0.1		3.3			

Intersection Summary

HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↔↑↑								
Traffic Volume (veh/h)	0	1244	32	0	0	0	0	0	0	144	312	0
Future Volume (veh/h)	0	1244	32	0	0	0	0	0	0	144	312	0
Initial Q (Qb), veh	0	0	0	000								
Ped-Bike Adj(A_pbT)	1.00		0.99	1.001.00								
Parking Bus, Adj	1.00	1.00	1.00	1.001.001.00								
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	0	1870	1870	187018700								
Adj Flow Rate, veh/h	0	1338	34	1553350								
Peak Hour Factor	0.93	0.93	0.93	0.930.930.93								
Percent Heavy Veh, %	0	2	2	220								
Cap, veh/h	0	2750	70	57213710								
Arrive On Green	0.00	0.18	0.18	0.120.120.00								
Sat Flow, veh/h	0	5287	130	153038370								
Grp Volume(v), veh/h	0	890	482	1823080								
Grp Sat Flow(s),veh/h/ln	0	1702	1845	179417020								
Q Serve(g_s), s	0.0	25.9	25.9	10.19.00.0								
Cycle Q Clear(g_c), s	0.0	25.9	25.9	10.19.00.0								
Prop In Lane	0.00		0.07	0.850.00								
Lane Grp Cap(c), veh/h	0	1829	991	67012720								
V/C Ratio(X)	0.00	0.49	0.49	0.270.240.00								
Avail Cap(c_a), veh/h	0	1829	991	67012720								
HCM Platoon Ratio	1.00	0.33	0.33	0.330.331.00								
Upstream Filter(I)	0.00	1.00	1.00	1.001.000.00								
Uniform Delay (d), s/veh	0.0	31.6	31.6	34.634.10.0								
Incr Delay (d2), s/veh	0.0	0.9	1.7	1.00.50.0								
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.00.00.0								
%ile BackOfQ(50%),veh/ln	0.0	12.0	13.2	5.14.10.0								
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.5	33.3	35.634.60.0								
LnGrp LOS	A	C	C	DCA								
Approach Vol, veh/h	1372			490								
Approach Delay, s/veh	32.8			35.0								
Approach LOS	C			C								
Timer - Assigned Phs	2			4								
Phs Duration (G+Y+Rc), s	64.0			46.0								
Change Period (Y+Rc), s	4.9			4.9								
Max Green Setting (Gmax), s	59.1			41.1								
Max Q Clear Time (g_c+l1), s	27.9			12.1								
Green Ext Time (p_c), s	4.0			1.3								
Intersection Summary												
HCM 6th Ctrl Delay	33.4											
HCM 6th LOS	C											

SDCRAA ADP EIR
28: India St & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	50	1551	0	0	0	0	0	97	200	0	0	0
Future Volume (veh/h)	50	1551	0	0	0	0	0	97	200	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	54	1668	0				0	104	215			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	91	2978	0				0	583	490			
Arrive On Green	0.19	0.19	0.00				0.00	0.33	0.33			
Sat Flow, veh/h	156	5279	0				0	1870	1494			
Grp Volume(v), veh/h	647	1075	0				0	104	215			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1494			
Q Serve(g_s), s	34.8	31.3	0.0				0.0	4.6	12.4			
Cycle Q Clear(g_c), s	34.8	31.3	0.0				0.0	4.6	12.4			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1085	1984	0				0	583	490			
V/C Ratio(X)	0.60	0.54	0.00				0.00	0.18	0.44			
Avail Cap(c_a), veh/h	1085	1984	0				0	583	490			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	32.6	31.2	0.0				0.0	26.4	29.0			
Incr Delay (d2), s/veh	2.4	1.1	0.0				0.0	0.7	2.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ft	8.1	14.5	0.0				0.0	2.1	4.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	32.3	0.0				0.0	27.0	31.8			
LnGrp LOS	D	C	A				A	C	C			
Approach Vol, veh/h		1722						319				
Approach Delay, s/veh		33.3						30.3				
Approach LOS		C						C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		69.0						41.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		64.1						36.1				
Max Q Clear Time (g_c+I1), s		36.8						14.4				
Green Ext Time (p_c), s		15.0						2.1				
Intersection Summary												
HCM 6th Ctrl Delay			32.8									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1842	67	0	0	0	0	0	0	205	347	0
Future Volume (veh/h)	0	1842	67	0	0	0	0	0	0	205	347	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1880	68							209	354	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2993	108							568	1134	0
Arrive On Green	0.00	0.20	0.20							0.11	0.11	0.00
Sat Flow, veh/h	0	5226	183							1781	3647	0
Grp Volume(v), veh/h	0	1264	684							209	354	0
Grp Sat Flow(s),veh/h/ln	0	1702	1836							1781	1777	0
Q Serve(g_s), s	0.0	37.5	37.6							12.0	10.1	0.0
Cycle Q Clear(g_c), s	0.0	37.5	37.6							12.0	10.1	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2015	1087							568	1134	0
V/C Ratio(X)	0.00	0.63	0.63							0.37	0.31	0.00
Avail Cap(c_a), veh/h	0	2015	1087							568	1134	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.1	33.2							38.9	38.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.8							1.8	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.4	19.3							6.0	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.6	35.9							40.7	38.8	0.0
LnGrp LOS	A	C	D							D	D	A
Approach Vol, veh/h		1948									563	
Approach Delay, s/veh		35.1									39.5	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		70.0	40.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		65.1	35.1									
Max Q Clear Time (g_c+l1), s		39.6	14.0									
Green Ext Time (p_c), s		16.6	3.0									
Intersection Summary												
HCM 6th Ctrl Delay			36.1									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	61	1748	0	0	0	0	0	59	63	0	0	0
Future Volume (veh/h)	61	1748	0	0	0	0	0	59	63	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	66	1900	0				0	64	68			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	112	3435	0				0	422	376			
Arrive On Green	0.22	0.22	0.00				0.00	0.24	0.24			
Sat Flow, veh/h	166	5268	0				0	1870	1585			
Grp Volume(v), veh/h	738	1228	0				0	64	68			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1585			
Q Serve(g_s), s	39.0	35.0	0.0				0.0	3.1	3.8			
Cycle Q Clear(g_c), s	39.0	35.0	0.0				0.0	3.1	3.8			
Prop In Lane	0.09		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1254	2293	0				0	422	376			
V/C Ratio(X)	0.59	0.54	0.00				0.00	0.15	0.18			
Avail Cap(c_a), veh/h	1254	2293	0				0	422	376			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	29.1	27.6	0.0				0.0	33.2	33.4			
Incr Delay (d2), s/veh	2.0	0.9	0.0				0.0	0.8	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.1	16.2	0.0				0.0	1.5	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	28.5	0.0				0.0	34.0	34.5			
LnGrp LOS	C	C	A				A	C	C			
Approach Vol, veh/h		1966						132				
Approach Delay, s/veh		29.5						34.2				
Approach LOS		C						C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		79.0						31.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		74.1						26.1				
Max Q Clear Time (g_c+l1), s		41.0						5.8				
Green Ext Time (p_c), s		19.8						0.7				
Intersection Summary												
HCM 6th Ctrl Delay			29.8									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	51	735	904	76	78	178
Future Volume (veh/h)	51	735	904	76	78	178
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	53	766	942	79	81	185
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	69	3859	3267	273	467	214
Arrive On Green	0.03	0.52	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	4842	391	3456	1585
Grp Volume(v), veh/h	53	766	668	353	81	185
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1746	1728	1585
Q Serve(g_s), s	3.5	9.7	0.0	0.0	2.4	13.5
Cycle Q Clear(g_c), s	3.5	9.7	0.0	0.0	2.4	13.5
Prop In Lane	1.00			0.22	1.00	1.00
Lane Grp Cap(c), veh/h	69	3859	2321	1219	467	214
V/C Ratio(X)	0.77	0.20	0.29	0.29	0.17	0.86
Avail Cap(c_a), veh/h	205	3859	2321	1219	1204	552
HCM Platoon Ratio	0.67	0.67	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	57.0	8.8	0.0	0.0	45.2	50.0
Incr Delay (d2), s/veh	6.4	0.1	0.3	0.6	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.2	0.1	0.2	1.1	11.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.4	8.9	0.3	0.6	45.2	53.9
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		819	1021		266	
Approach Delay, s/veh		12.4	0.4		51.3	
Approach LOS		B	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		97.1		20.9	8.9	88.2
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 66		41.1	13.6	48.2
Max Q Clear Time (g_c+I1), s		11.7		15.5	5.5	2.0
Green Ext Time (p_c), s		15.6		0.5	0.0	19.4
Intersection Summary						
HCM 6th Ctrl Delay			11.5			
HCM 6th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Traffic Volume (veh/h)	133	716	12	13	969	5	0	13	14	44	0	13
Future Volume (veh/h)	133	716	12	13	969	5	0	13	14	44	0	13
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		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	738	12	13	999	0	0	13	14	45	0	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	729	3594	58	60	1618		35	16	17	227	0	102
Arrive On Green	0.82	1.00	1.00	0.03	0.32	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5050	82	1781	4985	1585	1781	807	869	3456	0	1556
Grp Volume(v), veh/h	137	485	265	13	999	0	0	0	27	45	0	13
Grp Sat Flow(s), veh/h/ln	1781	1662	1809	1781	1662	1585	1781	0	1676	1728	0	1556
Q Serve(g_s), s	1.9	0.0	0.0	0.8	20.0	0.0	0.0	0.0	1.9	1.5	0.0	0.9
Cycle Q Clear(g_c), s	1.9	0.0	0.0	0.8	20.0	0.0	0.0	0.0	1.9	1.5	0.0	0.9
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	729	2365	1287	60	1618		35	0	33	227	0	102
V/C Ratio(X)	0.19	0.21	0.21	0.22	0.62		0.00	0.00	0.81	0.20	0.00	0.13
Avail Cap(c_a), veh/h	729	2365	1287	69	1618		92	0	87	996	0	448
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	0.0	0.0	55.5	33.7	0.0	0.0	0.0	57.6	52.2	0.0	51.9
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.7	1.8	0.0	0.0	0.0	15.5	0.2	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	0.1	0.1	0.4	8.0	0.0	0.0	0.0	1.0	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.6	0.2	0.4	56.1	35.4	0.0	0.0	0.0	73.1	52.3	0.0	52.1
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	887			1012			A			27		
Approach Delay, s/veh	1.2			35.7			73.1			52.3		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.7			12.7	54.0	44.1		7.2				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.6	53.4		34.0	19.6	* 38		6.1				
Max Q Clear Time (g_c+I), s	12.8	2.0		3.5	3.9	22.0		3.9				
Green Ext Time (p_c), s	0.0	10.4		0.1	0.1	9.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay 21.3

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	152	817	89	265	1369	0	96	31	156	0	22	103
Future Volume (veh/h)	152	817	89	265	1369	0	96	31	156	0	22	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	842	92	273	1411	0	99	32	0	0	23	106
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	625	2799	1046	333	1874	0	398	215		0	109	151
Arrive On Green	0.35	0.56	0.56	0.10	0.30	0.00	0.12	0.12	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1537	3456	6537	0	3456	1870	1585	0	1870	2578
Grp Volume(v), veh/h	157	842	92	273	1411	0	99	32	0	0	23	106
Grp Sat Flow(s), veh/h/ln	1781	1662	1537	1728	1570	0	1728	1870	1585	0	1870	1289
Q Serve(g_s), s	7.4	10.5	2.4	9.1	24.0	0.0	3.1	1.8	0.0	0.0	1.4	4.8
Cycle Q Clear(g_c), s	7.4	10.5	2.4	9.1	24.0	0.0	3.1	1.8	0.0	0.0	1.4	4.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	625	2799	1046	333	1874	0	398	215		0	109	151
V/C Ratio(X)	0.25	0.30	0.09	0.82	0.75	0.00	0.25	0.15		0.00	0.21	0.70
Avail Cap(c_a), veh/h	625	2799	1046	457	1874	0	1086	588		0	119	164
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	13.6	6.6	52.3	37.5	0.0	47.6	47.0	0.0	0.0	53.0	54.5
Incr Delay (d2), s/veh	0.1	0.3	0.2	0.6	0.3	0.0	0.1	0.1	0.0	0.0	0.9	11.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.1	3.7	1.1	3.9	8.9	0.0	1.3	0.9	0.0	0.0	0.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.3	13.9	6.7	52.9	37.7	0.0	47.7	47.1	0.0	0.0	53.9	66.2
LnGrp LOS	C	B	A	D	D	A	D	D		A	D	E
Approach Vol, veh/h	1091			1684			131			129		
Approach Delay, s/veh	15.2			40.2			47.5			64.0		
Approach LOS	B			D			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	72.0		11.8	47.1	40.6		18.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	5.6	37.9		7.5	18.6	* 35		37.1				
Max Q Clear Time (g_c+I1), s	11.1	12.5		6.8	9.4	26.0		5.1				
Green Ext Time (p_c), s	0.2	11.1		0.0	0.1	8.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay 32.6

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	16	4	6	12	13	186	9	21	293	62
Future Volume (veh/h)	36	5	16	4	6	12	13	186	9	21	293	62
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		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	16	17	4	8	12	14	198	10	22	312	66
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	44	46	32	63	80	193	1000	50	211	875	182
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.11	0.29	0.29	0.12	0.30	0.30
Sat Flow, veh/h	1781	822	873	613	1226	1558	1781	3434	172	1781	2902	603
Grp Volume(v), veh/h	30	0	33	12	0	12	14	102	106	22	189	189
Grp Sat Flow(s),veh/h/ln	1781	0	1695	1840	0	1558	1781	1777	1829	1781	1777	1728
Q Serve(g_s), s	0.5	0.0	0.6	0.2	0.0	0.2	0.2	1.4	1.4	0.4	2.7	2.8
Cycle Q Clear(g_c), s	0.5	0.0	0.6	0.2	0.0	0.2	0.2	1.4	1.4	0.4	2.7	2.8
Prop In Lane	1.00		0.52	0.33		1.00	1.00		0.09	1.00		0.35
Lane Grp Cap(c), veh/h	95	0	90	95	0	80	193	518	533	211	536	521
V/C Ratio(X)	0.32	0.00	0.37	0.13	0.00	0.15	0.07	0.20	0.20	0.10	0.35	0.36
Avail Cap(c_a), veh/h	270	0	257	1619	0	1370	216	1617	1665	270	1671	1625
HCM Platoon Ratio	1.00	1.00	1.00	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	15.0	0.0	15.1	14.9	0.0	14.9	13.2	8.8	8.8	13.0	9.0	9.0
Incr Delay (d2), s/veh	1.4	0.0	1.8	0.2	0.0	0.3	0.1	0.1	0.1	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	0.1	0.0	0.1	0.1	0.4	0.4	0.1	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	0.0	16.9	15.1	0.0	15.3	13.3	8.9	8.9	13.0	9.3	9.3
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	63				24				222		400	
Approach Delay, s/veh	16.7				15.2				9.2		9.5	
Approach LOS	B				B				A		A	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	13.6	5.8		7.6	13.9	5.7					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	5.0	30.0	5.0		4.0	31.0	29.0					
Max Q Clear Time (g_c+I12, s)	12.4	3.4	2.6		2.2	4.8	2.2					
Green Ext Time (p_c), s	0.0	0.9	0.0		0.0	1.8	0.0					

Intersection Summary

HCM 6th Ctrl Delay 10.2

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	144	2	4	60	115	191
Future Volume (veh/h)	144	2	4	60	115	191
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	149	0	4	0	119	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	759	399	715		265	
Arrive On Green	0.21	0.00	0.38	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	149	0	4	0	119	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.3	0.0	0.0	0.0	1.2	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.0	1.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	759	399	715		265	
V/C Ratio(X)	0.20	0.00	0.01		0.45	
Avail Cap(c_a), veh/h	1070	562	715		1227	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	7.0	0.0	16.2	0.0
Incr Delay (d2), s/veh	0.1	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
%ile BackOfQ(50%), veh/ln	0.4	0.0	0.0	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.0	0.0	7.0	0.0	17.4	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		149	4	A	119	A
Approach Delay, s/veh		12.0	7.0		17.4	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		11.8		6.8		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+I1), s		3.3		3.2		2.0
Green Ext Time (p_c), s		0.2		0.2		0.0

Intersection Summary

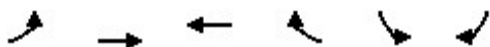
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

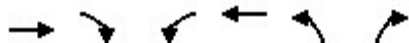
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	9	110	52	0	0	2
Future Vol, veh/h	9	110	52	0	0	2
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	128	60	0	0	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	67	0	-	0	152	39
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1533	-	-	-	825	1024
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1523	-	-	-	808	1015
Mov Cap-2 Maneuver	-	-	-	-	808	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	922	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		8.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1523	-	-	-	-	1015
HCM Lane V/C Ratio	0.007	-	-	-	-	0.002
HCM Control Delay (s)	7.4	0	-	-	-	8.6
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2039	2812	0	0	0
Future Volume (veh/h)	0	2039	2812	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2216	3057	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7310
Grp Volume(v), veh/h	0	2216	3057	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	14.2	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	14.2	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7732	9509
V/C Ratio(X)	0.00	0.86	1.19	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7732	9509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.4	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	4.1	88.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.1	20.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	16.4	102.2	0.0	8.1	8.1
LnGrp LOS	A	B	F	A	A	A
Approach Vol, veh/h		2216	3057	1077	1255	504
Approach Delay, s/veh		16.4	102.2		8.1	
Approach LOS		B	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				16.2	2.0	20.0
Green Ext Time (p_c), s				1.7	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	2322	18	62	1144	6	85
Future Volume (veh/h)	2322	18	62	1144	6	85
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2470	19	66	1217	6	90
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4823	1164	109	5255	137	110
Arrive On Green	0.77	0.77	0.06	1.00	0.08	0.08
Sat Flow, veh/h	6537	1516	3456	6537	1781	1427
Grp Volume(v), veh/h	2470	19	66	1217	6	90
Grp Sat Flow(s),veh/h/ln	1570	1516	1728	1570	1781	1427
Q Serve(g_s), s	17.8	0.3	2.2	0.0	0.4	7.3
Cycle Q Clear(g_c), s	17.8	0.3	2.2	0.0	0.4	7.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4823	1164	109	5255	137	110
V/C Ratio(X)	0.51	0.02	0.60	0.23	0.04	0.82
Avail Cap(c_a), veh/h	4823	1164	223	5255	515	412
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.99	0.99	1.00	1.00
Uniform Delay (d), s/veh	5.2	3.2	54.6	0.0	50.5	53.7
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.1	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.1	0.9	0.0	0.2	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.4	3.2	56.5	0.1	50.5	59.3
LnGrp LOS	A	A	E	A	D	E
Approach Vol, veh/h	2489			1283	96	
Approach Delay, s/veh	5.4			3.0	58.8	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	8.1	95.9		104.0	14.0	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	7.6	61.7		73.7	34.1	
Max Q Clear Time (g_c+I), s	14.2	19.8		2.0	9.3	
Green Ext Time (p_c), s	0.0	40.1		29.5	0.1	
Intersection Summary						
HCM 6th Ctrl Delay			5.9			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



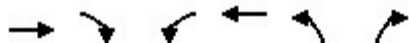
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰	↑	
Traffic Volume (veh/h)	11	2243	0	6	1031	72	0	0	0	5	0	5
Future Volume (veh/h)	11	2243	0	6	1031	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	2361	0	6	1085	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4109	0	60	5112	356	0	34	0	93	0	28
Arrive On Green	0.01	1.00	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	6034	420	0	1870	0	1752	0	1571
Grp Volume(v), veh/h	12	2361	0	6	846	315	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1744	0	1870	0	1752	0	1571
Q Serve(g_s), s	0.8	0.0	0.0	0.4	3.9	4.0	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	3.9	4.0	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.24	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4109	0	60	3991	1477	0	34	0	93	0	28
V/C Ratio(X)	0.61	0.57	0.00	0.10	0.21	0.21	0.00	0.00	0.00	0.05	0.00	0.18
Avail Cap(c_a), veh/h	69	4109	0	69	3991	1477	0	507	0	536	0	426
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	0.97	0.97	0.97	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	0.0	0.0	55.3	1.7	1.7	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	9.2	0.5	0.0	0.3	0.1	0.3	0.0	0.0	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 BackOfQ(50%),veh/ln	0.4	0.2	0.0	0.2	0.5	0.7	0.0	0.0	0.0	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	0.5	0.0	55.5	1.8	2.0	0.0	0.0	0.0	57.1	0.0	58.2
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	2373			1167			0			10		
Approach Delay, s/veh	0.8			2.1			0.0			57.6		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	66.8			32.0	4.6	66.8		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.8	6.0		0.0				
Green Ext Time (p_c), s	0.0	57.9		0.0	0.0	22.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	2209	2	31	1218	0	19
Future Volume (veh/h)	2209	2	31	1218	0	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.93	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	2375	2	33	1310	0	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	2971	3	55	3614	0	32
Arrive On Green	0.58	0.58	0.03	0.72	0.00	0.02
Sat Flow, veh/h	5308	4	1781	5149	0	1521
Grp Volume(v), veh/h	1534	843	33	1310	0	21
Grp Sat Flow(s), veh/h/ln	1662	1825	1781	1662	0	1597
Q Serve(g_s), s	13.7	13.7	0.7	3.7	0.0	0.5
Cycle Q Clear(g_c), s	13.7	13.7	0.7	3.7	0.0	0.5
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	1919	1054	55	3614	0	33
V/C Ratio(X)	0.80	0.80	0.60	0.36	0.00	0.63
Avail Cap(c_a), veh/h	1926	1058	189	3997	0	216
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.3	6.3	18.1	1.9	0.0	18.4
Incr Delay (d2), s/veh	3.2	5.6	3.8	0.2	0.0	17.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.0	0.3	0.1	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	11.9	21.9	2.2	0.0	36.1
LnGrp LOS	A	B	C	A	A	D
Approach Vol, veh/h	2377			1343	21	
Approach Delay, s/veh	10.3			2.6	36.1	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.6	27.0		32.6	5.2	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	4.0	21.9		30.3	5.1	
Max Q Clear Time (g_c+I2), s	12.5	15.7		5.7	2.5	
Green Ext Time (p_c), s	0.0	6.1		18.3	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			7.7			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	21.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	193	0	0	1409	680
Future Vol, veh/h	0	193	0	0	1409	680
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	214	0	0	1566	756

Major/Minor	Minor2		Major2	
Conflicting Flow All	1954	1171	-	0
Stage 1	1954	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	99	~ 159	-	-
Stage 1	61	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	97	~ 157	-	-
Mov Cap-2 Maneuver	97	-	-	-
Stage 1	60	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	254.7	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	157	-	-
HCM Lane V/C Ratio	-	1.366	-	-
HCM Control Delay (s)	0	254.7	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	13.2	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	127	569	122	71	693	307	51	35	27	172	90	127
Future Volume (veh/h)	127	569	122	71	693	307	51	35	27	172	90	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	639	137	80	779	345	57	39	30	193	101	143
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	2897	876	101	2702	819	246	220	173	340	436	380
Arrive On Green	0.19	1.00	1.00	0.11	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	5106	1545	1781	5106	1548	757	896	703	1318	1777	1546
Grp Volume(v), veh/h	143	639	137	80	779	345	59	0	67	193	101	143
Grp Sat Flow(s),veh/h/ln	1781	1702	1545	1781	1702	1548	791	0	1565	1318	1777	1546
Q Serve(g_s), s	9.1	0.0	0.0	5.2	0.0	0.0	5.2	0.0	4.0	16.0	5.4	9.1
Cycle Q Clear(g_c), s	9.1	0.0	0.0	5.2	0.0	0.0	14.3	0.0	4.0	19.9	5.4	9.1
Prop In Lane	1.00		1.00	1.00		1.00	0.96		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	169	2897	876	101	2702	819	254	0	384	340	436	380
V/C Ratio(X)	0.85	0.22	0.16	0.79	0.29	0.42	0.23	0.00	0.17	0.57	0.23	0.38
Avail Cap(c_a), veh/h	341	2897	876	235	2702	819	381	0	558	487	634	551
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.95	0.95	0.95	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	0.0	0.0	51.6	0.0	0.0	42.7	0.0	35.1	42.9	35.6	37.0
Incr Delay (d2), s/veh	4.2	0.2	0.4	4.9	0.3	1.5	0.2	0.0	0.1	4.3	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.1	2.3	0.1	0.3	1.5	0.0	1.5	5.6	2.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	0.2	0.4	56.6	0.3	1.5	42.9	0.0	35.2	47.2	36.4	38.8
LnGrp LOS	D	A	A	E	A	A	D	A	D	D	D	D
Approach Vol, veh/h		919			1204			126			437	
Approach Delay, s/veh		8.1			4.4			38.8			41.9	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	73.0		33.9	15.6	68.6		33.9				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	15.6	* 45		42.1	22.6	37.9		42.1				
Max Q Clear Time (g_c+I1), s	7.2	2.0		21.9	11.1	2.0		16.3				
Green Ext Time (p_c), s	0.0	9.3		4.7	0.1	18.2		0.5				

Intersection Summary

HCM 6th Ctrl Delay	13.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	426	0	0	560	268	0	0	0	378	0	25
Future Volume (veh/h)	15	426	0	0	560	268	0	0	0	378	0	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	501	0	0	659	0	0	0	0	472	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	2643	0	2	2457		0	2	1	556	292	0
Arrive On Green	0.02	0.74	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3556	1870	0
Grp Volume(v), veh/h	18	501	0	0	659	0	0	0	0	472	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1778	1870	0
Q Serve(g_s), s	1.2	5.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	15.2	0.0	0.0
Cycle Q Clear(g_c), s	1.2	5.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	15.2	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	27	2643	0	2	2457		0	2	1	556	292	0
V/C Ratio(X)	0.67	0.19	0.00	0.00	0.27		0.00	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	62	2643	0	62	2457		0	476	403	1115	586	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.80	0.00	0.00
Uniform Delay (d), s/veh	57.8	4.5	0.0	0.0	6.9	0.0	0.0	0.0	0.0	48.4	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	1.5	0.0	0.0	2.7	0.0	0.0	0.0	0.0	6.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	68.0	4.7	0.0	0.0	7.2	0.0	0.0	0.0	0.0	49.6	0.0	0.0
LnGrp LOS	E	A	A	A	A		A	A	A	D	A	A
Approach Vol, veh/h	519			659			0			472		
Approach Delay, s/veh	6.9			7.2			0.0			49.6		
Approach LOS	A			A						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	93.7		24.3	6.2	87.5		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s		* 27		37.0	4.1	25.8		30.0				
Max Q Clear Time (g_c+I), s		7.0		17.2	3.2	10.3		0.0				
Green Ext Time (p_c), s	0.0	7.1		0.9	0.0	6.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

Year 2024 with Project (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	351	176	74	197	101	114	641	77	130	853	103
Future Volume (veh/h)	327	351	176	74	197	101	114	641	77	130	853	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	344	369	185	78	207	106	120	675	81	137	898	108
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	369	620	305	99	411	266	175	1439	173	192	1620	708
Arrive On Green	0.21	0.27	0.27	0.06	0.12	0.12	0.05	0.45	0.45	0.06	0.46	0.46
Sat Flow, veh/h	1781	2284	1124	1781	3554	1536	3456	3192	383	3456	3554	1552
Grp Volume(v), veh/h	344	286	268	78	207	106	120	375	381	137	898	108
Grp Sat Flow(s),veh/h/ln	1781	1777	1631	1781	1777	1536	1728	1777	1798	1728	1777	1552
Q Serve(g_s), s	22.0	16.2	16.7	5.0	6.3	4.3	4.0	17.1	17.1	4.5	21.3	2.1
Cycle Q Clear(g_c), s	22.0	16.2	16.7	5.0	6.3	4.3	4.0	17.1	17.1	4.5	21.3	2.1
Prop In Lane	1.00		0.69	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	369	482	443	99	411	266	175	801	810	192	1620	708
V/C Ratio(X)	0.93	0.59	0.61	0.79	0.50	0.40	0.69	0.47	0.47	0.71	0.55	0.15
Avail Cap(c_a), veh/h	393	654	600	178	888	472	286	801	810	209	1620	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	36.7	36.8	54.1	48.2	19.3	54.2	22.2	22.2	53.9	23.0	3.8
Incr Delay (d2), s/veh	27.1	0.4	0.5	5.0	0.4	0.4	1.8	2.0	1.9	8.1	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.1	6.7	2.4	2.8	1.8	1.8	7.5	7.6	2.2	9.1	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	37.1	37.3	59.1	48.5	19.7	56.0	24.1	24.1	62.0	24.3	4.2
LnGrp LOS	E	D	D	E	D	B	E	C	C	E	C	A
Approach Vol, veh/h	898				391		876				1143	
Approach Delay, s/veh	50.7				42.8		28.5				27.0	
Approach LOS	D				D		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	57.6	10.9	36.7	10.3	58.2	29.2	18.3					
Change Period (Y+Rc), s	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9					
Max Green Setting (Gmax), s	* 36	11.6	42.7	9.6	32.8	25.6	* 29					
Max Q Clear Time (g_c+10), s	19.1	7.0	18.7	6.0	23.3	24.0	8.3					
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	2.1	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	254	90	148	188	68	128	99	189	56	81	68
Future Volume (veh/h)	48	254	90	148	188	68	128	99	189	56	81	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	270	96	157	200	72	136	105	201	60	86	72
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1219	650	232	698	547	169	1068	564	78	886	367
Arrive On Green	0.04	0.34	0.34	0.07	0.37	0.37	0.09	0.30	0.30	0.04	0.25	0.25
Sat Flow, veh/h	1781	3554	1456	3456	1870	1467	1781	3554	1524	1781	3554	1471
Grp Volume(v), veh/h	51	270	96	157	200	72	136	105	201	60	86	72
Grp Sat Flow(s),veh/h/ln	1781	1777	1456	1728	1870	1467	1781	1777	1524	1781	1777	1471
Q Serve(g_s), s	2.7	5.1	3.8	4.2	7.1	3.1	7.1	2.0	9.1	3.2	1.8	3.7
Cycle Q Clear(g_c), s	2.7	5.1	3.8	4.2	7.1	3.1	7.1	2.0	9.1	3.2	1.8	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1219	650	232	698	547	169	1068	564	78	886	367
V/C Ratio(X)	0.77	0.22	0.15	0.68	0.29	0.13	0.80	0.10	0.36	0.77	0.10	0.20
Avail Cap(c_a), veh/h	561	1493	762	1089	786	616	561	1493	747	561	1493	618
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	22.2	16.1	43.4	20.9	19.7	42.2	24.0	21.9	45.0	27.5	28.2
Incr Delay (d2), s/veh	7.1	0.1	0.1	1.3	0.1	0.1	3.4	0.0	0.4	5.9	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 BackOfQ(50%),veh/ln	1.3	2.1	1.3	1.8	3.1	1.0	3.3	0.9	3.3	1.5	0.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	22.3	16.2	44.7	21.1	19.7	45.6	24.0	22.3	50.9	27.5	28.3
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		417			429			442			218	
Approach Delay, s/veh		24.6			29.5			29.9			34.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	38.6	14.4	30.4	8.9	41.4	9.6	35.3				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	6.2	7.1	9.1	5.7	4.7	9.1	5.2	11.1				
Green Ext Time (p_c), s	0.3	2.7	0.2	0.5	0.0	1.0	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			28.9									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	↔
Traffic Volume (veh/h)	8	0	20	27	3	46	31	318	29	47	253	21
Future Volume (veh/h)	8	0	20	27	3	46	31	318	29	47	253	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	22	30	3	51	34	349	32	52	278	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	51	297	525	44	493	57	1378	124	79	1453	118
Arrive On Green	0.27	0.00	0.27	0.27	0.27	0.27	0.03	0.29	0.29	0.04	0.30	0.30
Sat Flow, veh/h	258	185	1083	1245	161	1537	1781	4749	426	1781	4799	389
Grp Volume(v), veh/h	31	0	0	33	0	51	34	248	133	52	195	106
Grp Sat Flow(s), veh/h/ln	1526	0	0	1405	0	1537	1781	1702	1772	1781	1702	1783
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.9	0.7	2.1	2.2	1.1	1.6	1.6
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.5	0.0	0.9	0.7	2.1	2.2	1.1	1.6	1.6
Prop In Lane	0.29		0.71	0.91		1.00	1.00		0.24	1.00		0.22
Lane Grp Cap(c), veh/h	542	0	0	569	0	493	57	987	514	79	1031	540
V/C Ratio(X)	0.06	0.00	0.00	0.06	0.00	0.10	0.60	0.25	0.26	0.65	0.19	0.20
Avail Cap(c_a), veh/h	1697	0	0	1660	0	1704	1420	5428	2825	1420	5428	2844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	0.0	10.1	0.0	9.0	18.0	10.2	10.3	17.7	9.7	9.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.2	0.4	3.4	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 BackOfQ(50%), veh/ln	0.2	0.0	0.0	0.2	0.0	0.2	0.3	0.6	0.7	0.5	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.1	0.0	0.0	10.1	0.0	9.1	21.7	10.4	10.6	21.1	9.8	9.9
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	A
Approach Vol, veh/h		31			84			415			353	
Approach Delay, s/veh		10.1			9.5			11.4			11.5	
Approach LOS		B			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.3			15.2	5.6	16.8		15.2				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.1	4.2		2.5	2.7	3.6		2.9				
Green Ext Time (p_c), s	0.1	3.6		0.1	0.0	2.4		0.2				

Intersection Summary

HCM 6th Ctrl Delay 11.2

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	23	39	47	35	18	168	572	61	30	461	98
Future Volume (veh/h)	15	23	39	47	35	18	168	572	61	30	461	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.90	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	25	42	51	38	20	183	622	66	33	501	107
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	554	421	66	549	416	227	1424	604	43	888	188
Arrive On Green	0.04	0.30	0.30	0.04	0.29	0.29	0.13	0.40	0.40	0.02	0.31	0.31
Sat Flow, veh/h	1781	1870	1421	1781	1870	1420	1781	3554	1506	1781	2883	611
Grp Volume(v), veh/h	16	25	42	51	38	20	183	622	66	33	307	301
Grp Sat Flow(s),veh/h/ln	1781	1870	1421	1781	1870	1420	1781	1777	1506	1781	1777	1717
Q Serve(g_s), s	0.8	0.9	2.1	2.8	1.4	1.0	9.7	12.3	2.7	1.8	14.0	14.2
Cycle Q Clear(g_c), s	0.8	0.9	2.1	2.8	1.4	1.0	9.7	12.3	2.7	1.8	14.0	14.2
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	72	554	421	66	549	416	227	1424	604	43	547	529
V/C Ratio(X)	0.22	0.05	0.10	0.77	0.07	0.05	0.81	0.44	0.11	0.76	0.56	0.57
Avail Cap(c_a), veh/h	552	579	440	552	579	440	552	2201	933	552	1100	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	24.3	24.7	46.3	24.7	24.5	41.1	21.1	18.2	47.0	28.0	28.1
Incr Delay (d2), s/veh	0.6	0.0	0.0	7.0	0.0	0.0	9.2	0.3	0.1	9.8	2.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.7	1.3	0.6	0.3	4.8	5.0	0.9	0.9	6.2	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	24.3	24.7	53.3	24.7	24.6	50.4	21.4	18.3	56.8	30.5	30.8
LnGrp LOS	D	C	C	D	C	C	D	C	B	E	C	C
Approach Vol, veh/h	83			109			871			641		
Approach Delay, s/veh	28.6			38.1			27.2			32.0		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	47.5	8.0	33.6	16.7	38.5	8.3	33.3				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	13.8	14.3	4.8	4.1	11.7	16.2	2.8	3.4				
Green Ext Time (p_c), s	0.0	6.6	0.0	0.1	0.7	10.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 29.8

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	204	18	156	115	0	0	0	0	219	25	31
Future Volume (veh/h)	0	204	18	156	115	0	0	0	0	219	25	31
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	215	19	164	121	0				250	0	33
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	241	481	211	341	652	0				949	0	631
Arrive On Green	0.00	0.14	0.14	0.19	0.19	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1556	1781	3572	0				3563	0	1562
Grp Volume(v), veh/h	0	215	19	164	121	0				250	0	33
Grp Sat Flow(s), veh/h/ln	1781	1777	1556	1781	1702	0				1781	0	1562
Q Serve(g_s), s	0.0	2.0	0.4	2.9	1.1	0.0				2.0	0.0	0.5
Cycle Q Clear(g_c), s	0.0	2.0	0.4	2.9	1.1	0.0				2.0	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	241	481	211	341	652	0				949	0	631
V/C Ratio(X)	0.00	0.45	0.09	0.48	0.19	0.00				0.26	0.00	0.05
Avail Cap(c_a), veh/h	2998	5982	2619	2998	5730	0				3498	0	1748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.2	13.5	12.8	12.1	0.0				10.3	0.0	6.5
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.2	0.2	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 BackOfQ(50%), veh/ln	0.0	0.6	0.1	0.9	0.3	0.0				0.6	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.4	13.6	14.0	12.2	0.0				10.4	0.0	6.5
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	234			285			283					
Approach Delay, s/veh	14.4			13.3			9.9					
Approach LOS	B			B			A					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	8.8			15.7			11.1					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.0			4.0			4.9					
Green Ext Time (p_c), s	0.8			0.5			1.9					

Intersection Summary

HCM 6th Ctrl Delay 12.4

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	355	0	1	248	257	32	12	146	21	0	215
Future Volume (veh/h)	95	355	0	1	248	257	32	12	146	21	0	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.99		0.99	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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	386	0	1	270	279	35	13	159	23	0	234
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1539	0	52	544	414	277	18	224	28	0	287
Arrive On Green	0.08	0.43	0.00	0.29	0.29	0.29	0.16	0.16	0.16	0.20	0.00	0.20
Sat Flow, veh/h	1781	3647	0	1	1868	1423	1781	118	1444	142	0	1445
Grp Volume(v), veh/h	103	386	0	271	0	279	35	0	172	257	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1869	0	1423	1781	0	1562	1587	0	0
Q Serve(g_s), s	3.9	4.8	0.0	0.0	0.0	12.0	1.2	0.0	7.3	10.8	0.0	0.0
Cycle Q Clear(g_c), s	3.9	4.8	0.0	8.3	0.0	12.0	1.2	0.0	7.3	10.8	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.92	0.09		0.91
Lane Grp Cap(c), veh/h	138	1539	0	596	0	414	277	0	243	315	0	0
V/C Ratio(X)	0.75	0.25	0.00	0.45	0.00	0.67	0.13	0.00	0.71	0.82	0.00	0.00
Avail Cap(c_a), veh/h	769	3069	0	1663	0	1228	1025	0	899	914	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	31.4	12.5	0.0	20.4	0.0	21.7	25.3	0.0	27.9	26.6	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.0	0.7	0.0	2.3	0.1	0.0	1.4	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.6	0.0	3.3	0.0	3.8	0.5	0.0	2.7	4.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	12.6	0.0	21.1	0.0	24.0	25.4	0.0	29.3	28.6	0.0	0.0
LnGrp LOS	D	B	A	C	A	C	C	A	C	C	A	A
Approach Vol, veh/h	489				550		207				257	
Approach Delay, s/veh	18.5				22.6		28.6				28.6	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	34.5		17.8		9.9	24.6	17.2					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	6.8		12.8		5.9	14.0	9.3					
Green Ext Time (p_c), s	1.5		1.1		0.3	4.3	0.8					

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	446	124	273	325	0	0	0	0	325	185	192
Future Volume (veh/h)	0	446	124	273	325	0	0	0	0	325	185	192
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	469	131	287	342	0				342	195	202
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1918	839	367	2482	0				659	346	284
Arrive On Green	0.00	0.54	0.54	0.21	1.00	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	3647	1555	3456	3647	0				3563	1870	1536
Grp Volume(v), veh/h	0	469	131	287	342	0				342	195	202
Grp Sat Flow(s),veh/h/ln	0	1777	1555	1728	1777	0				1781	1870	1536
Q Serve(g_s), s	0.0	5.9	3.6	6.6	0.0	0.0				7.3	8.0	10.4
Cycle Q Clear(g_c), s	0.0	5.9	3.6	6.6	0.0	0.0				7.3	8.0	10.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1918	839	367	2482	0				659	346	284
V/C Ratio(X)	0.00	0.24	0.16	0.78	0.14	0.00				0.52	0.56	0.71
Avail Cap(c_a), veh/h	0	1918	839	703	2482	0				1361	715	587
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.2	9.7	32.2	0.0	0.0				30.9	31.1	32.1
Incr Delay (d2), s/veh	0.0	0.3	0.4	1.4	0.1	0.0				0.2	0.5	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	1.1	2.4	0.0	0.0				3.1	3.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.5	10.1	33.5	0.1	0.0				31.1	31.7	33.4
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		600			629						739	
Approach Delay, s/veh		10.5			15.4						31.9	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.3	50.2		20.4		63.6						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.6	7.9		12.4		2.0						
Green Ext Time (p_c), s	0.3	3.1		1.7		2.4						

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	293	479	0	0	485	444	112	209	18	0	0	0
Future Volume (veh/h)	293	479	0	0	485	444	112	209	18	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	318	521	0	0	527	483	122	227	20			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1288	2720	0	0	1189	517	192	397	35			
Arrive On Green	0.75	1.00	0.00	0.00	0.33	0.33	0.12	0.12	0.12			
Sat Flow, veh/h	3456	3647	0	0	3647	1547	1632	3371	296			
Grp Volume(v), veh/h	318	521	0	0	527	483	134	113	122			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1547	1789	1702	1808			
Q Serve(g_s), s	2.4	0.0	0.0	0.0	9.7	25.4	6.0	5.3	5.4			
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.0	9.7	25.4	6.0	5.3	5.4			
Prop In Lane	1.00		0.00	0.00		1.00	0.91		0.16			
Lane Grp Cap(c), veh/h	1288	2720	0	0	1189	517	211	201	213			
V/C Ratio(X)	0.25	0.19	0.00	0.00	0.44	0.93	0.63	0.56	0.57			
Avail Cap(c_a), veh/h	1288	2720	0	0	1189	517	598	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.0	0.0	0.0	0.0	21.8	27.0	35.3	35.0	35.1			
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	1.2	26.1	1.2	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			
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.0	0.0	3.9	12.1	2.6	2.2	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	0.1	0.0	0.0	23.0	53.1	36.5	35.9	36.0			
LnGrp LOS	A	A	A	A	C	D	D	D	D			
Approach Vol, veh/h	839			1010			369					
Approach Delay, s/veh	2.8			37.4			36.2					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	69.2			36.2			33.0			14.8		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			4.4			27.4			8.0		
Green Ext Time (p_c), s	4.3			0.7			0.4			1.3		

Intersection Summary

HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	22	60	23	970	14	0	0	0
Future Volume (veh/h)	0	0	0	0	22	60	23	970	14	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	24	66	25	1066	15			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	85	139	2984	41			
Arrive On Green				0.00	0.07	0.07	0.60	0.60	0.60			
Sat Flow, veh/h				0	441	1212	41	4982	69			
Grp Volume(v), veh/h				0	0	90	405	335	366			
Grp Sat Flow(s),veh/h/ln				0	0	1652	1857	1549	1687			
Q Serve(g_s), s				0.0	0.0	1.8	0.0	3.7	3.7			
Cycle Q Clear(g_c), s				0.0	0.0	1.8	3.7	3.7	3.7			
Prop In Lane				0.00		0.73	0.06		0.04			
Lane Grp Cap(c), veh/h				0	0	116	1226	928	1010			
V/C Ratio(X)				0.00	0.00	0.77	0.33	0.36	0.36			
Avail Cap(c_a), veh/h				0	0	1969	3406	2769	3016			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	15.3	3.4	3.4	3.4			
Incr Delay (d2), s/veh				0.0	0.0	4.1	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.5	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	19.4	3.7	3.8	3.8			
LnGrp LOS				A	A	B	A	A	A			
Approach Vol, veh/h					90			1106				
Approach Delay, s/veh					19.4			3.7				
Approach LOS					B			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		25.7						7.9				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		5.7						3.8				
Green Ext Time (p_c), s		14.4						0.4				
Intersection Summary												
HCM 6th Ctrl Delay			4.9									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	190	76	306	404	81	187	266	119	53	263	73
Future Volume (veh/h)	96	190	76	306	404	81	187	266	119	53	263	73
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		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	204	82	329	434	87	201	286	128	57	283	78
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	399	335	376	528	106	245	991	406	73	742	192
Arrive On Green	0.08	0.21	0.21	0.21	0.35	0.35	0.14	0.28	0.28	0.04	0.19	0.19
Sat Flow, veh/h	1781	1870	1569	1781	1511	303	1781	3514	1438	1781	3997	1032
Grp Volume(v), veh/h	103	204	82	329	0	521	201	276	138	57	238	123
Grp Sat Flow(s), veh/h/ln	1781	1870	1569	1781	0	1814	1781	1702	1548	1781	1702	1625
Q Serve(g_s), s	4.3	7.2	3.3	13.5	0.0	19.7	8.3	4.8	5.3	2.4	4.6	5.0
Cycle Q Clear(g_c), s	4.3	7.2	3.3	13.5	0.0	19.7	8.3	4.8	5.3	2.4	4.6	5.0
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.93	1.00		0.63
Lane Grp Cap(c), veh/h	134	399	335	376	0	634	245	960	437	73	632	302
V/C Ratio(X)	0.77	0.51	0.24	0.88	0.00	0.82	0.82	0.29	0.32	0.78	0.38	0.41
Avail Cap(c_a), veh/h	710	994	834	710	0	964	710	2714	1234	710	2714	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(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	34.2	26.1	24.6	28.7	0.0	22.4	31.6	21.1	21.3	35.7	26.8	27.0
Incr Delay (d2), s/veh	3.5	0.4	0.1	2.6	0.0	3.5	2.6	0.3	0.8	6.5	0.7	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.9	3.2	1.2	5.8	0.0	8.6	3.6	1.8	1.9	1.1	1.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.6	26.5	24.7	31.3	0.0	25.9	34.2	21.4	22.1	42.3	27.5	28.6
LnGrp LOS	D	C	C	C	A	C	C	C	C	D	C	C
Approach Vol, veh/h		389			850			615			418	
Approach Delay, s/veh		29.1			28.0			25.7			29.8	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	26.5	20.3	21.0	14.7	19.3	10.1	31.2				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.4	7.3	15.5	9.2	10.3	7.0	6.3	21.7				
Green Ext Time (p_c), s	0.1	5.3	0.4	1.0	0.2	4.4	0.1	3.5				

Intersection Summary

HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2024 with Project (ALT 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	131	277	110	199	0	0	0	0	78	1227	514
Future Volume (veh/h)	0	131	277	110	199	0	0	0	0	78	1227	514
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	134	283	112	203	0				80	1252	524
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	411	348	208	417	0				1102	2179	906
Arrive On Green	0.00	0.22	0.22	0.22	0.22	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1585	595	1987	0				1781	3522	1464
Grp Volume(v), veh/h	0	134	283	152	163	0				80	1210	566
Grp Sat Flow(s),veh/h/ln	0	1870	1585	879	1617	0				1781	1702	1581
Q Serve(g_s), s	0.0	4.8	13.6	9.3	7.1	0.0				1.4	16.9	17.1
Cycle Q Clear(g_c), s	0.0	4.8	13.6	14.2	7.1	0.0				1.4	16.9	17.1
Prop In Lane	0.00		1.00	0.74		0.00				1.00		0.93
Lane Grp Cap(c), veh/h	0	411	348	271	355	0				1102	2106	978
V/C Ratio(X)	0.00	0.33	0.81	0.56	0.46	0.00				0.07	0.57	0.58
Avail Cap(c_a), veh/h	0	698	592	441	603	0				1330	2541	1180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	26.4	29.8	31.3	27.2	0.0				6.1	9.1	9.1
Incr Delay (d2), s/veh	0.0	0.2	1.8	1.3	0.7	0.0				0.0	0.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	5.3	2.9	2.8	0.0				0.5	5.4	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.5	31.6	32.7	27.9	0.0				6.2	9.5	10.1
LnGrp LOS	A	C	C	C	C	A				A	A	B
Approach Vol, veh/h		417			315						1856	
Approach Delay, s/veh		30.0			30.2						9.5	
Approach LOS		C			C						A	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				24.3		56.0		24.3				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				15.6		19.1		16.2				
Green Ext Time (p_c), s				0.9		30.6		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2024 with Project (ALT 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖		↖	↑↑				
Traffic Volume (veh/h)	112	16	78	0	26	16	290	1005	34	0	0	0
Future Volume (veh/h)	112	16	78	0	26	16	290	1005	34	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	130	19	91	0	30	19	337	1169	40			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	374	43	1131	0	199	126	943	1854	63			
Arrive On Green	0.19	0.19	0.19	0.00	0.19	0.19	0.53	0.53	0.53			
Sat Flow, veh/h	1067	233	1572	0	1068	677	1781	3502	120			
Grp Volume(v), veh/h	149	0	91	0	0	49	337	593	616			
Grp Sat Flow(s),veh/h/ln	1300	0	1572	0	0	1745	1781	1777	1845			
Q Serve(g_s), s	3.4	0.0	0.0	0.0	0.0	0.9	4.2	9.0	9.0			
Cycle Q Clear(g_c), s	4.3	0.0	0.0	0.0	0.0	0.9	4.2	9.0	9.0			
Prop In Lane	0.87		1.00	0.00		0.39	1.00		0.06			
Lane Grp Cap(c), veh/h	418	0	1131	0	0	324	943	941	977			
V/C Ratio(X)	0.36	0.00	0.08	0.00	0.00	0.15	0.36	0.63	0.63			
Avail Cap(c_a), veh/h	1255	0	2071	0	0	1367	1373	1369	1422			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.6	0.0	1.6	0.0	0.0	13.1	5.2	6.4	6.4			
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.2	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.0	0.0	0.0	0.3	0.9	2.1	2.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	0.0	1.7	0.0	0.0	13.1	5.5	7.1	7.0			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h	240			49			1546					
Approach Delay, s/veh	10.0			13.1			6.7					
Approach LOS	B			B			A					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	24.8			13.5			13.5					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+I1), s	11.0			6.3			2.9					
Green Ext Time (p_c), s	9.2			1.2			0.1					
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									
Notes												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	32	43	142	10	60	31	483	99	44	631	17
Future Volume (veh/h)	21	32	43	142	10	60	31	483	99	44	631	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	34	45	149	11	63	33	508	104	46	664	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	194	257	447	64	367	52	2033	618	130	2076	56
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.40	0.40	0.04	0.41	0.41
Sat Flow, veh/h	1318	727	962	1312	240	1373	1781	5106	1552	3456	5106	138
Grp Volume(v), veh/h	22	0	79	149	0	74	33	508	104	46	442	240
Grp Sat Flow(s),veh/h/ln	1318	0	1689	1312	0	1612	1781	1702	1552	1728	1702	1840
Q Serve(g_s), s	0.7	0.0	1.8	4.9	0.0	1.8	0.9	3.3	2.2	0.7	4.4	4.5
Cycle Q Clear(g_c), s	2.4	0.0	1.8	6.7	0.0	1.8	0.9	3.3	2.2	0.7	4.4	4.5
Prop In Lane	1.00		0.57	1.00		0.85	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	449	0	452	447	0	431	52	2033	618	130	1384	748
V/C Ratio(X)	0.05	0.00	0.17	0.33	0.00	0.17	0.63	0.25	0.17	0.35	0.32	0.32
Avail Cap(c_a), veh/h	1147	0	1345	1141	0	1284	1064	6099	1854	2064	4066	2198
HCM Platoon Ratio	1.00	1.00	1.00	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	15.1	0.0	14.1	16.7	0.0	14.1	24.1	10.1	9.7	23.6	10.2	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.1	4.6	0.1	0.2	0.6	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 BackOfQ(50%),veh/ln	0.2	0.0	0.6	1.4	0.0	0.6	0.4	1.0	0.6	0.3	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	0.0	14.2	16.9	0.0	14.2	28.7	10.2	10.0	24.2	10.3	10.4
LnGrp LOS	B	A	B	B	A	B	C	B	A	C	B	B
Approach Vol, veh/h	101				223		645		728			
Approach Delay, s/veh	14.4				16.0		11.1		11.2			
Approach LOS	B				B		B		B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.3	25.7	18.2		5.9	26.1	18.2					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	12.7	5.3	4.4		2.9	6.5	8.7					
Green Ext Time (p_c), s	0.1	7.6	0.3		0.0	4.9	0.5					

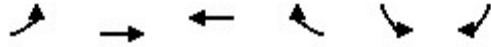
Intersection Summary

HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2401	13	0	1750	0	1
Future Vol, veh/h	2401	13	0	1750	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	2475	13	0	1804	0	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1244
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	142
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	142
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		30.5	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	142	-	-	-		
HCM Lane V/C Ratio	0.007	-	-	-		
HCM Control Delay (s)	30.5	-	-	-		
HCM Lane LOS	D	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1021	1562	1756	61	48	62
Future Volume (veh/h)	1021	1562	1756	61	48	62
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1075	1644	1848	0	51	65
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	955	4256	2693		102	91
Arrive On Green	0.28	0.85	0.54	0.00	0.06	0.06
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1075	1644	1848	0	51	65
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	32.6	8.5	32.0	0.0	3.3	4.8
Cycle Q Clear(g_c), s	32.6	8.5	32.0	0.0	3.3	4.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	955	4256	2693		102	91
V/C Ratio(X)	1.13	0.39	0.69		0.50	0.72
Avail Cap(c_a), veh/h	955	4256	2693		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.68	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	1.9	19.8	0.0	54.0	54.7
Incr Delay (d2), s/veh	70.3	0.3	1.0	0.0	1.4	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	1.1	11.5	0.0	1.5	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	113.0	2.1	20.8	0.0	55.4	58.6
LnGrp LOS	F	A	C		E	E
Approach Vol, veh/h		2719	1848	A	116	
Approach Delay, s/veh		46.0	20.8		57.2	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.1		11.9	37.0	69.1
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	32.6	* 41
Max Q Clear Time (g_c+I1), s		10.5		6.8	34.6	34.0
Green Ext Time (p_c), s		50.9		0.1	0.0	6.6
Intersection Summary						
HCM 6th Ctrl Delay			36.3			
HCM 6th LOS			D			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	801	71	53	951	74	82	251	74	75	135	471
Future Volume (veh/h)	258	801	71	53	951	74	82	251	74	75	135	471
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.95	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	263	817	72	54	970	76	84	256	76	77	138	481
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	237	1684	148	140	1538	120	104	830	228	97	1058	510
Arrive On Green	0.13	0.51	0.51	0.03	0.15	0.15	0.06	0.21	0.21	0.05	0.21	0.21
Sat Flow, veh/h	1781	3303	291	1781	3334	261	1781	3927	1080	1781	5106	1444
Grp Volume(v), veh/h	263	440	449	54	517	529	84	219	113	77	138	481
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1777	1818	1781	1702	1603	1781	1702	1444
Q Serve(g_s), s	18.6	22.5	22.6	4.2	38.2	38.2	6.5	7.6	8.4	6.0	3.1	29.0
Cycle Q Clear(g_c), s	18.6	22.5	22.6	4.2	38.2	38.2	6.5	7.6	8.4	6.0	3.1	29.0
Prop In Lane	1.00		0.16	1.00		0.14	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	237	906	927	140	820	839	104	720	339	97	1058	510
V/C Ratio(X)	1.11	0.49	0.49	0.39	0.63	0.63	0.80	0.30	0.33	0.80	0.13	0.94
Avail Cap(c_a), veh/h	237	906	927	140	820	839	135	720	339	160	1058	510
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	0.99	0.99	0.99	0.95	0.95	0.95
Uniform Delay (d), s/veh	60.7	22.3	22.3	64.9	48.2	48.2	65.1	46.5	46.8	65.4	45.2	45.5
Incr Delay (d2), s/veh	91.6	1.9	1.8	7.0	3.2	3.2	17.8	0.3	0.6	5.2	0.1	25.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	9.6	9.8	2.2	19.0	19.4	3.5	3.3	3.4	2.8	1.3	19.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	152.3	24.2	24.1	71.8	51.4	51.3	82.9	46.8	47.5	70.6	45.3	71.2
LnGrp LOS	F	C	C	E	D	D	F	D	D	E	D	E
Approach Vol, veh/h	1152		1100				416		696			
Approach Delay, s/veh	53.4		52.4				54.3		66.0			
Approach LOS	D		D				D		E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.0	34.6	16.8	76.6	12.6	34.0	23.0	70.4				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	12.6	* 27	10.0	* 71	10.6	29.0	18.6	62.2				
Max Q Clear Time (g_c+1/3), s	10.4	10.4	6.2	24.6	8.5	31.0	20.6	40.2				
Green Ext Time (p_c), s	0.0	2.0	0.0	9.3	0.0	0.0	0.0	5.9				

Intersection Summary

HCM 6th Ctrl Delay	55.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑					↵↑↑	↑↑	↵
Traffic Volume (veh/h)	0	809	98	35	153	0	0	0	0	128	160	926
Future Volume (veh/h)	0	809	98	35	153	0	0	0	0	128	160	926
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	879	107	38	166	0				139	174	1007
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1367	166	63	1762	0				340	1992	651
Arrive On Green	0.00	0.14	0.14	0.04	0.50	0.00				0.42	0.42	0.42
Sat Flow, veh/h	0	3281	388	1781	3647	0				813	4758	1555
Grp Volume(v), veh/h	0	490	496	38	166	0				313	0	1007
Grp Sat Flow(s),veh/h/ln	0	1777	1799	1781	1777	0				1830	1870	1555
Q Serve(g_s), s	0.0	36.5	36.5	2.9	3.5	0.0				16.8	0.0	58.6
Cycle Q Clear(g_c), s	0.0	36.5	36.5	2.9	3.5	0.0				16.8	0.0	58.6
Prop In Lane	0.00		0.22	1.00		0.00				0.44		1.00
Lane Grp Cap(c), veh/h	0	762	771	63	1762	0				766	1566	651
V/C Ratio(X)	0.00	0.64	0.64	0.60	0.09	0.00				0.41	0.00	1.55
Avail Cap(c_a), veh/h	0	762	771	109	1762	0				766	1566	651
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.90	0.90	0.88	0.88	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	50.0	50.0	66.6	18.7	0.0				28.5	0.0	40.7
Incr Delay (d2), s/veh	0.0	3.7	3.7	3.0	0.1	0.0				1.6	0.0	253.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.2	18.4	1.4	1.4	0.0				7.9	0.0	68.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	53.7	53.7	69.6	18.8	0.0				30.2	0.0	294.3
LnGrp LOS	A	D	D	E	B	A				C	A	F
Approach Vol, veh/h		986			204						1320	
Approach Delay, s/veh		53.7			28.2						231.7	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.3	66.7		64.0		76.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	8.6	* 58		58.6		69.4						
Max Q Clear Time (g_c+I14, s)	14.9	38.5		60.6		5.5						
Green Ext Time (p_c), s	0.0	1.9		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	145.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2024 with Project (ALT 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	722	257	0	0	124	150	41	101	57	0	0	0
Future Volume (veh/h)	722	257	0	0	124	150	41	101	57	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	776	276	0	0	133	161	44	109	61			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1368	1494	0	0	606	535	77	207	120			
Arrive On Green	0.40	0.80	0.00	0.00	0.34	0.34	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	1870	1568	981	2617	1519			
Grp Volume(v), veh/h	776	276	0	0	133	161	82	71	61			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1568	1821	1777	1519			
Q Serve(g_s), s	14.0	2.8	0.0	0.0	4.3	6.0	3.5	3.1	3.1			
Cycle Q Clear(g_c), s	14.0	2.8	0.0	0.0	4.3	6.0	3.5	3.1	3.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.54		1.00			
Lane Grp Cap(c), veh/h	1368	1494	0	0	606	535	144	140	120			
V/C Ratio(X)	0.57	0.18	0.00	0.00	0.22	0.30	0.57	0.51	0.51			
Avail Cap(c_a), veh/h	1368	1494	0	0	606	535	478	466	399			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.72	0.72	0.00	0.00	1.00	1.00	0.98	0.98	0.98			
Uniform Delay (d), s/veh	18.8	1.9	0.0	0.0	18.8	19.3	35.5	35.4	35.4			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	0.1	0.1	1.3	1.0	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	0.4	0.0	0.0	1.6	2.0	1.6	1.4	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	2.1	0.0	0.0	18.8	19.5	36.8	36.4	36.6			
LnGrp LOS	B	A	A	A	B	B	D	D	D			
Approach Vol, veh/h	1052			294			214					
Approach Delay, s/veh	14.7			19.2			36.6					
Approach LOS	B			B			D					
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	68.8			36.6		32.2	11.2					
Change Period (Y+Rc), s	4.9			4.9		* 4.9	4.9					
Max Green Setting (Gmax), s	49.2			23.8		* 21	21.0					
Max Q Clear Time (g_c+I1), s	4.8			16.0		8.0	5.5					
Green Ext Time (p_c), s	1.0			2.0		0.8	0.6					

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	177	1394	407	0	0	1583
Future Volume (veh/h)	177	1394	407	0	0	1583
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	181	0	415	0	0	1615
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	213		3177	0	204	4972
Arrive On Green	0.12	0.00	0.64	0.00	0.00	0.79
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	181	0	415	0	0	1615
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.0	0.0	3.6	0.0	0.0	7.9
Cycle Q Clear(g_c), s	11.0	0.0	3.6	0.0	0.0	7.9
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	213		3177	0	204	4972
V/C Ratio(X)	0.85		0.13	0.00	0.00	0.32
Avail Cap(c_a), veh/h	487		3177	0	738	4972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.00	0.99	0.00	0.00	0.93
Uniform Delay (d), s/veh	47.5	0.0	7.9	0.0	0.0	3.2
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	1.1	0.0	0.0	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.4	0.0	7.9	0.0	0.0	3.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	181	A	415			1615
Approach Delay, s/veh	50.4		7.9			3.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.0	75.0			92.0	18.0
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.6	20.1			70.1	30.1
Max Q Clear Time (g_c+I10), s	10.6	5.6			9.9	13.0
Green Ext Time (p_c), s	0.0	3.0			23.5	0.2

Intersection Summary

HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2024 with Project (ALT 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	196	1437	138	123	261	0	0	184	48
Future Volume (veh/h)	0	0	0	196	1437	138	123	261	0	0	184	48
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				202	1481	142	127	269	0	0	190	49
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				288	2255	222	156	1417	0	0	533	125
Arrive On Green				0.17	0.17	0.17	0.18	0.56	0.00	0.00	0.13	0.13
Sat Flow, veh/h				555	4343	428	1781	5274	0	0	4211	950
Grp Volume(v), veh/h				671	563	591	127	269	0	0	157	82
Grp Sat Flow(s),veh/h/ln				1843	1702	1781	1781	1702	0	0	1702	1588
Q Serve(g_s), s				37.7	33.9	34.0	7.5	2.9	0.0	0.0	4.6	5.2
Cycle Q Clear(g_c), s				37.7	33.9	34.0	7.5	2.9	0.0	0.0	4.6	5.2
Prop In Lane				0.30		0.24	1.00		0.00	0.00		0.60
Lane Grp Cap(c), veh/h				956	884	925	156	1417	0	0	449	209
V/C Ratio(X)				0.70	0.64	0.64	0.81	0.19	0.00	0.00	0.35	0.39
Avail Cap(c_a), veh/h				956	884	925	285	1908	0	0	545	254
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.78	0.78	0.78	0.69	0.69	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh				37.5	35.9	36.0	44.5	18.3	0.0	0.0	43.5	43.7
Incr Delay (d2), s/veh				3.4	2.7	2.6	2.7	0.0	0.0	0.0	0.3	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				19.5	16.1	16.9	3.2	1.1	0.0	0.0	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.9	38.7	38.6	47.2	18.4	0.0	0.0	43.8	44.5
LnGrp LOS				D	D	D	D	B	A	A	D	D
Approach Vol, veh/h					1825			396			239	
Approach Delay, s/veh					39.5			27.6			44.0	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.5	20.9		63.0	36.4				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				17.6	* 18		57.1	41.1				
Max Q Clear Time (g_c+I1), s				9.5	7.2		39.7	4.9				
Green Ext Time (p_c), s				0.1	0.8		9.7	2.1				
Intersection Summary												
HCM 6th Ctrl Delay				38.0								
HCM 6th LOS				D								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	202	1735	0	0	0	0	0	161	63
Future Volume (veh/h)	0	0	0	202	1735	0	0	0	0	0	161	63
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				210	1807	0				0	168	66
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				359	3306	0				0	771	269
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				514	4903	0				0	3840	1280
Grp Volume(v), veh/h				754	1263	0				0	154	80
Grp Sat Flow(s),veh/h/ln				1845	1702	0				0	1702	1548
Q Serve(g_s), s				40.0	35.8	0.0				0.0	4.1	4.7
Cycle Q Clear(g_c), s				40.0	35.8	0.0				0.0	4.1	4.7
Prop In Lane				0.28		0.00				0.00		0.83
Lane Grp Cap(c), veh/h				1288	2377	0				0	715	325
V/C Ratio(X)				0.59	0.53	0.00				0.00	0.22	0.25
Avail Cap(c_a), veh/h				1288	2377	0				0	715	325
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.2	26.6	0.0				0.0	36.0	36.2
Incr Delay (d2), s/veh				2.0	0.9	0.0				0.0	0.7	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.4	16.5	0.0				0.0	1.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.1	27.4	0.0				0.0	36.6	38.0
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2017						234	
Approach Delay, s/veh					28.4						37.1	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				28.0		82.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				23.1		76.8						
Max Q Clear Time (g_c+I1), s				6.7		42.0						
Green Ext Time (p_c), s				0.3		3.3						
Intersection Summary												
HCM 6th Ctrl Delay											29.3	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1865	129	86	98	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1865	129	86	98	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1923	133	89	101	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3387	233	331	418	0			
Arrive On Green				0.00	0.23	0.23	0.21	0.21	0.00			
Sat Flow, veh/h				0	5038	335	1576	2086	0			
Grp Volume(v), veh/h				0	1342	714	101	89	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1801	1792	1777	0			
Q Serve(g_s), s				0.0	38.4	38.7	5.2	4.6	0.0			
Cycle Q Clear(g_c), s				0.0	38.4	38.7	5.2	4.6	0.0			
Prop In Lane				0.00		0.19	0.88		0.00			
Lane Grp Cap(c), veh/h				0	2367	1253	376	373	0			
V/C Ratio(X)				0.00	0.57	0.57	0.27	0.24	0.00			
Avail Cap(c_a), veh/h				0	2367	1253	376	373	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	27.7	27.8	36.4	36.1	0.0			
Incr Delay (d2), s/veh				0.0	1.0	1.9	1.8	1.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	17.7	19.2	2.5	2.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	28.7	29.7	38.1	37.6	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2056			190				
Approach Delay, s/veh					29.0			37.9				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.0		28.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						76.5		23.1				
Max Q Clear Time (g_c+l1), s						40.7		7.2				
Green Ext Time (p_c), s						22.2		0.9				
Intersection Summary												
HCM 6th Ctrl Delay											29.8	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	218	2015	0	0	0	0	0	144	41
Future Volume (veh/h)	0	0	0	218	2015	0	0	0	0	0	144	41
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				229	2121	0				0	152	43
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				344	3413	0				0	682	294
Arrive On Green				0.24	0.24	0.00				0.00	0.19	0.19
Sat Flow, veh/h				480	4938	0				0	3647	1531
Grp Volume(v), veh/h				880	1470	0				0	152	43
Grp Sat Flow(s),veh/h/ln				1846	1702	0				0	1777	1531
Q Serve(g_s), s				47.5	42.3	0.0				0.0	4.0	2.6
Cycle Q Clear(g_c), s				47.5	42.3	0.0				0.0	4.0	2.6
Prop In Lane				0.26		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1321	2435	0				0	682	294
V/C Ratio(X)				0.67	0.60	0.00				0.00	0.22	0.15
Avail Cap(c_a), veh/h				1321	2435	0				0	682	294
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.1	28.1	0.0				0.0	37.5	37.0
Incr Delay (d2), s/veh				2.7	1.1	0.0				0.0	0.8	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				24.4	19.6	0.0				0.0	1.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.8	29.2	0.0				0.0	38.3	38.0
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2350						195	
Approach Delay, s/veh					30.6						38.2	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.0		84.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				21.1		78.7						
Max Q Clear Time (g_c+l1), s				6.0		49.5						
Green Ext Time (p_c), s				0.9		22.2						
Intersection Summary												
HCM 6th Ctrl Delay											31.2	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2135	68	46	36	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2135	68	46	36	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2224	71	48	38	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3671	117	325	325	0			
Arrive On Green				0.00	0.72	0.72	0.18	0.18	0.00			
Sat Flow, veh/h				0	5248	162	1781	1870	0			
Grp Volume(v), veh/h				0	1488	807	48	38	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1837	1781	1777	0			
Q Serve(g_s), s				0.0	23.7	23.9	2.5	2.0	0.0			
Cycle Q Clear(g_c), s				0.0	23.7	23.9	2.5	2.0	0.0			
Prop In Lane				0.00		0.09	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2460	1328	325	325	0			
V/C Ratio(X)				0.00	0.60	0.61	0.15	0.12	0.00			
Avail Cap(c_a), veh/h				0	2460	1328	325	325	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	7.5	7.5	37.8	37.5	0.0			
Incr Delay (d2), s/veh				0.0	1.1	2.1	1.0	0.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	7.8	8.8	1.2	0.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	8.6	9.6	38.7	38.3	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					2295			86				
Approach Delay, s/veh					9.0			38.5				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.0		25.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						79.5		20.1				
Max Q Clear Time (g_c+I1), s						25.9		4.5				
Green Ext Time (p_c), s						32.8		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				10.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	123	548	2	90	0	0	0	12
Future Vol, veh/h	0	0	0	0	123	548	2	90	0	0	0	12
Conflicting Peds, #/hr	6	0	0	0	0	6	15	0	0	0	0	15
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	128	571	2	94	0	0	0	13
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	79	705	-	-	-	371
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	79	705	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	901	359	0	0	0	626
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	921	437	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	883	357	-	-	-	622
Mov Cap-2 Maneuver				-	-	-	883	357	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	902	434	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		18.6		10.9				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	357	-	-	622								
HCM Lane V/C Ratio	0.263	-	-	0.02								
HCM Control Delay (s)	18.6	-	-	10.9								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	388	126	1092	683	0
Future Volume (veh/h)	0	0	0	0	0	0	0	388	126	1092	683	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	408	133	1149	719	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	2057	634	2512	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.41	0.41	0.50	0.95	0.00
Sat Flow, veh/h		0					0	5149	1537	5023	1826	0
Grp Volume(v), veh/h		0.0					0	408	133	1149	719	0
Grp Sat Flow(s),veh/h/ln							0	1662	1537	1674	1826	0
Q Serve(g_s), s							0.0	5.8	6.1	16.3	3.4	0.0
Cycle Q Clear(g_c), s							0.0	5.8	6.1	16.3	3.4	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	2057	634	2512	1740	0
V/C Ratio(X)							0.00	0.20	0.21	0.46	0.41	0.00
Avail Cap(c_a), veh/h							0	2057	634	2512	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.93	0.93	0.00
Uniform Delay (d), s/veh							0.0	20.7	20.8	17.8	0.2	0.0
Incr Delay (d2), s/veh							0.0	0.1	0.4	0.1	0.7	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	2.2	2.2	5.8	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	20.8	21.2	17.9	0.9	0.0
LnGrp LOS							A	C	C	B	A	A
Approach Vol, veh/h								541			1868	
Approach Delay, s/veh								20.9			11.4	
Approach LOS								C			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	59.4	50.6					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	19.6	* 45					68.8					
Max Q Clear Time (g_c+I1), s	18.3	8.1					5.4					
Green Ext Time (p_c), s	0.7	7.3					7.5					
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	63	1146	71	0	0	0	0	295	208	97	278	0
Future Volume (veh/h)	63	1146	71	0	0	0	0	295	208	97	278	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	65	1181	73				0	304	214	100	287	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	159	3071	947				0	611	272	130	1494	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.15	0.58	0.00
Sat Flow, veh/h	258	5003	1542				0	3572	1513	1781	5274	0
Grp Volume(v), veh/h	467	779	73				0	304	214	100	287	0
Grp Sat Flow(s),veh/h/ln	1857	1702	1542				0	1702	1513	1781	1702	0
Q Serve(g_s), s	24.1	21.7	4.2				0.0	8.9	14.9	5.9	2.9	0.0
Cycle Q Clear(g_c), s	24.1	21.7	4.2				0.0	8.9	14.9	5.9	2.9	0.0
Prop In Lane	0.14		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1140	2090	947				0	611	272	130	1494	0
V/C Ratio(X)	0.41	0.37	0.08				0.00	0.50	0.79	0.77	0.19	0.00
Avail Cap(c_a), veh/h	1140	2090	947				0	901	400	350	2534	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	26.5	25.6	18.6				0.0	40.7	43.1	46.1	16.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0				0.0	0.7	6.8	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	2.0	9.9	1.5				0.0	3.7	6.0	2.6	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	25.6	18.6				0.0	41.4	49.9	49.3	16.8	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h		1319						518			387	
Approach Delay, s/veh		25.6						44.9			25.2	
Approach LOS		C						D			C	
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		72.4		37.6			12.4	25.1				
Change Period (Y+Rc), s		4.9		5.4			4.4	* 5.4				
Max Green Setting (Gmax), s		45.1		54.6			21.6	* 29				
Max Q Clear Time (g_c+l1), s		26.1		4.9			7.9	16.9				
Green Ext Time (p_c), s		11.7		1.6			0.1	2.9				
Intersection Summary												
HCM 6th Ctrl Delay			30.0									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1452	49	0	0	0	0	0	0	145	237	0
Future Volume (veh/h)	0	1452	49	0	0	0	0	0	0	145	237	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1497	51							149	244	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2951	101							585	1117	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5233	173							1781	3572	0
Grp Volume(v), veh/h	0	1006	542							149	244	0
Grp Sat Flow(s),veh/h/ln	0	1702	1833							1781	1702	0
Q Serve(g_s), s	0.0	29.1	29.1							8.4	7.2	0.0
Cycle Q Clear(g_c), s	0.0	29.1	29.1							8.4	7.2	0.0
Prop In Lane	0.00		0.09							1.00		0.00
Lane Grp Cap(c), veh/h	0	1984	1068							585	1117	0
V/C Ratio(X)	0.00	0.51	0.51							0.25	0.22	0.00
Avail Cap(c_a), veh/h	0	1984	1068							585	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.3	30.3							36.7	36.2	0.0
Incr Delay (d2), s/veh	0.0	0.9	1.7							1.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.5	14.8							4.1	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.2	32.0							37.8	36.6	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1548									393	
Approach Delay, s/veh		31.5									37.0	
Approach LOS		C									D	
Timer - Assigned Phs		2			4							
Phs Duration (G+Y+Rc), s		69.0			41.0							
Change Period (Y+Rc), s		4.9			4.9							
Max Green Setting (Gmax), s		64.1			36.1							
Max Q Clear Time (g_c+l1), s		31.1			10.4							
Green Ext Time (p_c), s		4.8			1.0							
Intersection Summary												
HCM 6th Ctrl Delay			32.6									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	73	1776	0	0	0	0	0	103	213	0	0	0
Future Volume (veh/h)	73	1776	0	0	0	0	0	103	213	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00	0.92				
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00				
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	75	1831	0				0	106	220			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	112	2908	0				0	599	494			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	195	5238	0				0	1870	1465			
Grp Volume(v), veh/h	715	1191	0				0	106	220			
Grp Sat Flow(s),veh/h/ln	1861	1702	0				0	1777	1465			
Q Serve(g_s), s	39.3	35.3	0.0				0.0	4.6	12.9			
Cycle Q Clear(g_c), s	39.3	35.3	0.0				0.0	4.6	12.9			
Prop In Lane	0.10		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1067	1953	0				0	599	494			
V/C Ratio(X)	0.67	0.61	0.00				0.00	0.18	0.45			
Avail Cap(c_a), veh/h	1067	1953	0				0	599	494			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	34.9	33.3	0.0				0.0	25.7	28.4			
Incr Delay (d2), s/veh	3.4	1.4	0.0				0.0	0.6	2.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.5	16.4	0.0				0.0	2.1	4.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	34.7	0.0				0.0	26.3	31.3			
LnGrp LOS	D	C	A				A	C	C			
Approach Vol, veh/h	1906					326						
Approach Delay, s/veh	36.1					29.7						
Approach LOS	D					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	68.0					42.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	63.1					37.1						
Max Q Clear Time (g_c+I1), s	41.3					14.9						
Green Ext Time (p_c), s	14.6					2.2						
Intersection Summary												
HCM 6th Ctrl Delay			35.1									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	2099	82	0	0	0	0	0	0	148	233	0
Future Volume (veh/h)	0	2099	82	0	0	0	0	0	0	148	233	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2142	84							151	238	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3257	127							471	940	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5207	197							1781	3647	0
Grp Volume(v), veh/h	0	1444	782							151	238	0
Grp Sat Flow(s),veh/h/ln	0	1702	1831							1781	1777	0
Q Serve(g_s), s	0.0	42.7	43.0							8.8	6.9	0.0
Cycle Q Clear(g_c), s	0.0	42.7	43.0							8.8	6.9	0.0
Prop In Lane	0.00		0.11							1.00		0.00
Lane Grp Cap(c), veh/h	0	2200	1184							471	940	0
V/C Ratio(X)	0.00	0.66	0.66							0.32	0.25	0.00
Avail Cap(c_a), veh/h	0	2200	1184							471	940	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	32.1	32.2							40.9	40.1	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.9							1.8	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.9	21.9							4.4	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.6	35.1							42.7	40.7	0.0
LnGrp LOS	A	C	D							D	D	A
Approach Vol, veh/h		2226									389	
Approach Delay, s/veh		34.2									41.5	
Approach LOS		C									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		76.0	34.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		71.1	29.1									
Max Q Clear Time (g_c+l1), s		45.0	10.8									
Green Ext Time (p_c), s		19.4	1.9									
Intersection Summary												
HCM 6th Ctrl Delay			35.2									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	45	1978	0	0	0	0	0	48	51	0	0	0
Future Volume (veh/h)	45	1978	0	0	0	0	0	48	51	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	47	2082	0				0	51	54			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	75	3522	0				0	405	362			
Arrive On Green	0.23	0.23	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	110	5328	0				0	1870	1585			
Grp Volume(v), veh/h	800	1329	0				0	51	54			
Grp Sat Flow(s),veh/h/ln	1865	1702	0				0	1777	1585			
Q Serve(g_s), s	42.6	38.2	0.0				0.0	2.5	3.0			
Cycle Q Clear(g_c), s	42.6	38.2	0.0				0.0	2.5	3.0			
Prop In Lane	0.06	0.00					0.00	1.00				
Lane Grp Cap(c), veh/h	1273	2324	0				0	405	362			
V/C Ratio(X)	0.63	0.57	0.00				0.00	0.13	0.15			
Avail Cap(c_a), veh/h	1273	2324	0				0	405	362			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	30.0	28.3	0.0				0.0	33.7	33.9			
Incr Delay (d2), s/veh	2.4	1.0	0.0				0.0	0.6	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	22.0	17.7	0.0				0.0	1.2	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	29.3	0.0				0.0	34.4	34.8			
LnGrp LOS	C	C	A				A	C	C			
Approach Vol, veh/h												
		2129							105			
		30.5							34.6			
		C							C			
Timer - Assigned Phs												
		2							8			
		80.0							30.0			
		4.9							4.9			
		75.1							25.1			
		44.6							5.0			
		20.7							0.5			
Intersection Summary												
HCM 6th Ctrl Delay			30.7									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	34	725	677	108	96	211
Future Volume (veh/h)	34	725	677	108	96	211
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	37	780	728	116	103	227
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	47	3725	2957	466	560	257
Arrive On Green	0.03	0.75	1.00	1.00	0.16	0.16
Sat Flow, veh/h	1781	5149	4491	682	3456	1585
Grp Volume(v), veh/h	37	780	557	287	103	227
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1686	1728	1585
Q Serve(g_s), s	2.4	5.5	0.0	0.0	3.0	16.5
Cycle Q Clear(g_c), s	2.4	5.5	0.0	0.0	3.0	16.5
Prop In Lane	1.00			0.40	1.00	1.00
Lane Grp Cap(c), veh/h	47	3725	2271	1152	560	257
V/C Ratio(X)	0.78	0.21	0.25	0.25	0.18	0.88
Avail Cap(c_a), veh/h	175	3725	2271	1152	1321	606
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	57.1	4.5	0.0	0.0	42.7	48.3
Incr Delay (d2), s/veh	9.7	0.1	0.2	0.5	0.1	4.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.2	1.5	0.1	0.2	1.3	14.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	66.8	4.6	0.2	0.5	42.8	52.3
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		817	844		330	
Approach Delay, s/veh		7.4	0.3		49.3	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.0		24.0	7.5	86.4
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 62		45.1	11.6	46.2
Max Q Clear Time (g_c+l1), s		7.5		18.5	4.4	2.0
Green Ext Time (p_c), s		16.0		0.6	0.0	15.0

Intersection Summary

HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	144	799	23	32	815	18	11	0	21	9	0	9
Future Volume (veh/h)	144	799	23	32	815	18	11	0	21	9	0	9
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		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	148	824	24	33	840	0	11	0	22	9	0	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	734	3463	101	63	1533		40	0	31	268	0	117
Arrive On Green	0.82	1.00	1.00	0.04	0.31	0.00	0.02	0.00	0.02	0.08	0.00	0.08
Sat Flow, veh/h	1781	4974	145	1781	4985	1585	1781	0	1403	3456	0	1505
Grp Volume(v), veh/h	148	550	298	33	840	0	11	0	22	9	0	9
Grp Sat Flow(s), veh/h/ln	1781	1662	1796	1781	1662	1585	1781	0	1403	1728	0	1505
Q Serve(g_s), s	2.1	0.0	0.0	2.1	16.6	0.0	0.7	0.0	1.8	0.3	0.0	0.7
Cycle Q Clear(g_c), s	2.1	0.0	0.0	2.1	16.6	0.0	0.7	0.0	1.8	0.3	0.0	0.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	734	2314	1250	63	1533		40	0	31	268	0	117
V/C Ratio(X)	0.20	0.24	0.24	0.53	0.55		0.28	0.00	0.70	0.03	0.00	0.08
Avail Cap(c_a), veh/h	734	2314	1250	130	1533		77	0	61	996	0	434
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.3	0.0	0.0	56.0	34.0	0.0	56.7	0.0	57.3	50.3	0.0	50.5
Incr Delay (d2), s/veh	0.0	0.2	0.4	2.5	1.4	0.0	1.4	0.0	10.0	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 BackOfQ(50%), veh/ln	0.7	0.1	0.2	1.0	6.6	0.0	0.3	0.0	0.7	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.3	0.2	0.4	58.5	35.4	0.0	58.1	0.0	67.3	50.4	0.0	50.6
LnGrp LOS	A	A	A	E	D		E	A	E	D	A	D
Approach Vol, veh/h	996			873			33			18		
Approach Delay, s/veh	1.2			36.3			64.2			50.5		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	87.8		14.1	54.3	42.1		7.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	8.6	50.4		34.0	22.6	* 36		5.1				
Max Q Clear Time (g_c+I), s	14.1	2.0		2.7	4.1	18.6		3.8				
Green Ext Time (p_c), s	0.0	12.2		0.0	0.2	8.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
33: Harbor Island Dr & N Harbor Dr

Year 2024 with Project (ALT 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	812	97	220	1185	0	101	38	180	0	28	108
Future Volume (veh/h)	184	812	97	220	1185	0	101	38	180	0	28	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	204	902	108	244	1317	0	112	42	0	0	31	120
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	760	3114	1058	303	1741	0	204	110		0	113	157
Arrive On Green	0.43	0.62	0.62	0.09	0.28	0.00	0.06	0.06	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1544	3456	6537	0	3456	1870	1585	0	1870	2609
Grp Volume(v), veh/h	204	902	108	244	1317	0	112	42	0	0	31	120
Grp Sat Flow(s),veh/h/ln	1781	1662	1544	1728	1570	0	1728	1870	1585	0	1870	1304
Q Serve(g_s), s	8.8	9.8	2.8	8.2	22.6	0.0	3.7	2.6	0.0	0.0	1.9	5.3
Cycle Q Clear(g_c), s	8.8	9.8	2.8	8.2	22.6	0.0	3.7	2.6	0.0	0.0	1.9	5.3
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	760	3114	1058	303	1741	0	204	110		0	113	157
V/C Ratio(X)	0.27	0.29	0.10	0.81	0.76	0.00	0.55	0.38		0.00	0.28	0.76
Avail Cap(c_a), veh/h	760	3114	1058	413	1741	0	1084	586		0	113	157
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	10.2	6.4	52.8	39.0	0.0	54.0	53.5	0.0	0.0	53.0	54.6
Incr Delay (d2), s/veh	0.1	0.2	0.2	0.5	0.3	0.0	0.9	0.8	0.0	0.0	1.3	19.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	3.3	1.1	3.5	8.4	0.0	1.6	1.2	0.0	0.0	0.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	10.4	6.5	53.4	39.3	0.0	54.9	54.3	0.0	0.0	54.3	74.4
LnGrp LOS	C	B	A	D	D	A	D	D		A	D	E
Approach Vol, veh/h	1214			1561			154			151		
Approach Delay, s/veh	12.0			41.5			54.7			70.3		
Approach LOS	B			D			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	79.4		12.0	56.0	38.1		11.9				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	39.9			7.1	21.6	* 33		37.0				
Max Q Clear Time (g_c+110), s	11.8			7.3	10.8	24.6		5.7				
Green Ext Time (p_c), s	0.2	12.7		0.0	0.2	6.9		0.3				

Intersection Summary

HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	0	26	7	8	22	16	246	10	26	292	49
Future Volume (veh/h)	61	0	26	7	8	22	16	246	10	26	292	49
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		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	26	27	7	14	19	17	259	11	27	307	52
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	60	62	23	45	58	201	1038	44	207	915	153
Arrive On Green	0.07	0.07	0.07	0.04	0.04	0.04	0.11	0.30	0.30	0.12	0.30	0.30
Sat Flow, veh/h	1781	837	869	613	1226	1573	1781	3466	146	1781	3021	504
Grp Volume(v), veh/h	46	0	53	21	0	19	17	132	138	27	179	180
Grp Sat Flow(s),veh/h/ln	1781	0	1706	1840	0	1573	1781	1777	1835	1781	1777	1747
Q Serve(g_s), s	0.8	0.0	1.0	0.4	0.0	0.4	0.3	1.9	1.9	0.5	2.6	2.7
Cycle Q Clear(g_c), s	0.8	0.0	1.0	0.4	0.0	0.4	0.3	1.9	1.9	0.5	2.6	2.7
Prop In Lane	1.00		0.51	0.33		1.00	1.00		0.08	1.00		0.29
Lane Grp Cap(c), veh/h	128	0	122	68	0	58	201	532	550	207	539	530
V/C Ratio(X)	0.36	0.00	0.43	0.31	0.00	0.33	0.08	0.25	0.25	0.13	0.33	0.34
Avail Cap(c_a), veh/h	265	0	254	1586	0	1356	212	1584	1637	265	1637	1610
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	15.0	15.8	0.0	15.8	13.4	8.9	8.9	13.3	9.1	9.1
Incr Delay (d2), s/veh	1.3	0.0	1.8	0.9	0.0	1.2	0.1	0.2	0.2	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.2	0.0	0.1	0.1	0.5	0.5	0.1	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	0.0	16.7	16.7	0.0	17.0	13.4	9.1	9.1	13.5	9.4	9.4
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	99				40				287		386	
Approach Delay, s/veh	16.5				16.8				9.4		9.7	
Approach LOS	B				B				A		A	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	14.1	6.4		7.8	14.2	5.2					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	5.0	30.0	5.0		4.0	31.0	29.0					
Max Q Clear Time (g_c+I), s	12.5	3.9	3.0		2.3	4.7	2.4					
Green Ext Time (p_c), s	0.0	1.2	0.0		0.0	1.7	0.1					

Intersection Summary

HCM 6th Ctrl Delay 10.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	182	10	10	87	131	195
Future Volume (veh/h)	182	10	10	87	131	195
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	208	0	11	0	144	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	833	437	689		284	
Arrive On Green	0.23	0.00	0.37	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	208	0	11	0	144	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.8	0.0	0.1	0.0	1.5	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.1	0.0	1.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	833	437	689		284	
V/C Ratio(X)	0.25	0.00	0.02		0.51	
Avail Cap(c_a), veh/h	1031	541	689		1182	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	7.6	0.0	16.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	7.7	0.0	18.1	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		208	11	A	144	A
Approach Delay, s/veh		12.0	7.7		18.1	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.9		7.1		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+I1), s		3.8		3.5		2.1
Green Ext Time (p_c), s		0.4		0.3		0.0

Intersection Summary

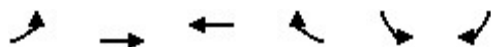
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

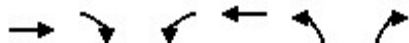
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	
Traffic Vol, veh/h	13	132	78	0	2	2
Future Vol, veh/h	13	132	78	0	2	2
Conflicting Peds, #/hr	6	0	0	6	0	1
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	155	92	0	2	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	98	0	-	0	206	53
Stage 1	-	-	-	-	98	-
Stage 2	-	-	-	-	108	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1493	-	-	-	763	1003
Stage 1	-	-	-	-	915	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	745	996
Mov Cap-2 Maneuver	-	-	-	-	745	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	899	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.2		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1484	-	-	-	852	
HCM Lane V/C Ratio	0.01	-	-	-	0.006	
HCM Control Delay (s)	7.5	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2329	2476	0	0	0
Future Volume (veh/h)	0	2329	2476	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2532	2691	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7872
Grp Volume(v), veh/h	0	2532	2691	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	17.5	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	17.5	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7732	8005
V/C Ratio(X)	0.00	0.98	1.05	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7732	8005
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.4	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	14.3	31.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.7	9.8	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	27.7	44.6	0.0	8.1	8.1
LnGrp LOS	A	C	F	A	A	A
Approach Vol, veh/h		2532	2691	1077	1255	504
Approach Delay, s/veh		27.7	44.6		8.1	
Approach LOS		C	D		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s				19.5	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	2540	22	56	723	17	58
Future Volume (veh/h)	2540	22	56	723	17	58
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2619	23	58	745	18	60
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4979	1188	100	5394	98	78
Arrive On Green	0.79	0.79	0.06	1.00	0.05	0.05
Sat Flow, veh/h	6537	1499	3456	6537	1781	1427
Grp Volume(v), veh/h	2619	23	58	745	18	60
Grp Sat Flow(s), veh/h/ln	1570	1499	1728	1570	1781	1427
Q Serve(g_s), s	17.5	0.4	1.9	0.0	1.1	4.9
Cycle Q Clear(g_c), s	17.5	0.4	1.9	0.0	1.1	4.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4979	1188	100	5394	98	78
V/C Ratio(X)	0.53	0.02	0.58	0.14	0.18	0.77
Avail Cap(c_a), veh/h	4979	1188	223	5394	500	400
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.3	2.6	54.9	0.0	53.3	55.0
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.1	0.3	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.1	0.8	0.0	0.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.4	2.6	56.9	0.1	53.6	60.8
LnGrp LOS	A	A	E	A	D	E
Approach Vol, veh/h	2642			803	78	
Approach Delay, s/veh	4.4			4.2	59.2	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	7.8	98.8		106.6	11.4	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	7.6	62.7		74.7	33.1	
Max Q Clear Time (g_c+I), s	13.9	19.5		2.0	6.9	
Green Ext Time (p_c), s	0.0	41.9		14.2	0.1	
Intersection Summary						
HCM 6th Ctrl Delay			5.5			
HCM 6th LOS			A			

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK



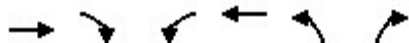
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑			↰ ↑↑↑				↰		↰	↰	
Traffic Volume (veh/h)	15	2411	1	8	349	99	1	0	1	5	0	5
Future Volume (veh/h)	15	2411	1	8	349	99	1	0	1	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	2511	1	8	364	103	1	0	1	5	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	25	4151	2	60	4117	1076	62	11	28	111	0	55
Arrive On Green	0.02	1.00	1.00	0.03	0.83	0.83	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1781	5147	2	1781	4980	1302	463	308	771	1381	0	1545
Grp Volume(v), veh/h	16	1621	891	8	343	124	2	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	1825	1781	1570	1572	1542	0	0	1381	0	1545
Q Serve(g_s), s	1.1	0.0	0.0	0.5	1.6	1.8	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.5	1.6	1.8	0.1	0.0	0.0	0.4	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.83	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	25	2680	1472	60	3894	1299	101	0	0	111	0	55
V/C Ratio(X)	0.65	0.60	0.60	0.13	0.09	0.10	0.02	0.00	0.00	0.05	0.00	0.09
Avail Cap(c_a), veh/h	100	2680	1472	69	3894	1299	444	0	0	436	0	419
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.6	0.0	0.0	55.3	1.9	1.9	54.9	0.0	0.0	55.0	0.0	55.0
Incr Delay (d2), s/veh	8.5	0.8	1.5	0.4	0.0	0.1	0.0	0.0	0.0	0.1	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 BackOfQ(50%),veh/ln	0.5	0.3	0.6	0.2	0.3	0.3	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	0.8	1.5	55.7	2.0	2.1	54.9	0.0	0.0	55.1	0.0	55.3
LnGrp LOS	E	A	A	E	A	A	D	A	A	E	A	E
Approach Vol, veh/h	2528			475			2			10		
Approach Delay, s/veh	1.5			2.9			54.9			55.2		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	100.5			9.1	6.0	102.8		9.1				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	66.8			32.0	6.6	64.8		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	3.1	3.8		2.1				
Green Ext Time (p_c), s	0.0	59.4		0.0	0.0	7.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	2394	11	27	543	0	28
Future Volume (veh/h)	2394	11	27	543	0	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.91	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	2468	11	28	560	0	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3038	14	48	3642	0	44
Arrive On Green	0.59	0.59	0.03	0.73	0.00	0.03
Sat Flow, veh/h	5284	23	1781	5149	0	1540
Grp Volume(v), veh/h	1601	878	28	560	0	30
Grp Sat Flow(s),veh/h/ln	1662	1819	1781	1662	0	1593
Q Serve(g_s), s	15.1	15.1	0.6	1.4	0.0	0.7
Cycle Q Clear(g_c), s	15.1	15.1	0.6	1.4	0.0	0.7
Prop In Lane		0.01	1.00		0.00	0.97
Lane Grp Cap(c), veh/h	1972	1080	48	3642	0	45
V/C Ratio(X)	0.81	0.81	0.59	0.15	0.00	0.66
Avail Cap(c_a), veh/h	1977	1083	183	4030	0	728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.4	6.4	19.2	1.6	0.0	19.2
Incr Delay (d2), s/veh	3.4	6.0	4.2	0.1	0.0	15.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	3.4	0.3	0.0	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	12.4	23.4	1.7	0.0	34.6
LnGrp LOS	A	B	C	A	A	C
Approach Vol, veh/h	2479			588	30	
Approach Delay, s/veh	10.7			2.7	34.6	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.5	28.8		34.3	5.5	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	23.7			32.2	18.2	
Max Q Clear Time (g_c+I2), s	17.1			3.4	2.7	
Green Ext Time (p_c), s	0.0	6.5		8.8	0.0	

Intersection Summary

HCM 6th Ctrl Delay	9.4
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	37.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	285	0	0	1219	656
Future Vol, veh/h	0	285	0	0	1219	656
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	303	0	0	1297	698
Major/Minor	Minor2		Major2			
Conflicting Flow All	1651	1003			-	0
Stage 1	1651	-			-	-
Stage 2	0	-			-	-
Critical Hdwy	5.74	7.14			-	-
Critical Hdwy Stg 1	6.64	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	3.82	3.92			-	-
Pot Cap-1 Maneuver	144	~ 206			-	-
Stage 1	95	-			-	-
Stage 2	-	-			-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	143	~ 205			-	-
Mov Cap-2 Maneuver	143	-			-	-
Stage 1	95	-			-	-
Stage 2	-	-			-	-
Approach	EB		SB			
HCM Control Delay, s	283		0			
HCM LOS	F					
Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR		
Capacity (veh/h)		- 205	-	-		
HCM Lane V/C Ratio		- 1.479	-	-		
HCM Control Delay (s)		0 283	-	-		
HCM Lane LOS		A F	-	-		
HCM 95th %tile Q(veh)		- 18.4	-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2024 with Project (ALT 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	455	46	55	490	197	40	40	31	159	41	146
Future Volume (veh/h)	97	455	46	55	490	197	40	40	31	159	41	146
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	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	464	47	56	500	201	41	41	32	162	42	149
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	2171	658	72	2016	612	366	391	328	544	681	602
Arrive On Green	0.02	0.14	0.14	0.04	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	5106	1548	1781	5106	1550	796	1019	856	1317	1777	1571
Grp Volume(v), veh/h	99	464	47	56	500	201	56	0	58	162	42	149
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1550	1131	0	1539	1317	1777	1571
Q Serve(g_s), s	5.6	8.2	2.7	3.2	6.7	9.2	2.0	0.0	2.4	9.2	1.5	6.6
Cycle Q Clear(g_c), s	5.6	8.2	2.7	3.2	6.7	9.2	8.6	0.0	2.4	11.6	1.5	6.6
Prop In Lane	1.00		1.00	1.00		1.00	0.73		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	126	2171	658	72	2016	612	495	0	590	544	681	602
V/C Ratio(X)	0.78	0.21	0.07	0.78	0.25	0.33	0.11	0.00	0.10	0.30	0.06	0.25
Avail Cap(c_a), veh/h	272	2171	658	185	2016	612	495	0	590	544	681	602
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	28.7	26.4	48.5	20.7	21.5	22.6	0.0	20.1	23.9	19.9	21.4
Incr Delay (d2), s/veh	3.9	0.2	0.2	6.3	0.3	1.4	0.5	0.0	0.3	0.9	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.5	1.0	1.5	2.6	3.4	1.0	0.0	0.9	3.0	0.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	29.0	26.6	54.7	21.0	22.8	23.1	0.0	20.5	24.7	20.0	22.0
LnGrp LOS	D	C	C	D	C	C	C	A	C	C	B	C
Approach Vol, veh/h		610			757			114			353	
Approach Delay, s/veh		32.7			24.0			21.8			23.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	49.5		44.0	11.6	46.4		44.0				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	10.6	* 37		39.1	15.6	31.9		39.1				
Max Q Clear Time (g_c+I1), s	5.2	10.2		13.6	7.6	11.2		10.6				
Green Ext Time (p_c), s	0.0	5.3		4.1	0.1	8.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Min green cannot be greater than Max Green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	261	152	84	231	133	171	707	87	146	783	108
Future Volume (veh/h)	245	261	152	84	231	133	171	707	87	146	783	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	255	272	158	88	241	139	178	736	91	152	816	112
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	282	478	268	111	427	279	236	1560	193	208	1715	748
Arrive On Green	0.16	0.22	0.22	0.06	0.12	0.12	0.07	0.49	0.49	0.06	0.48	0.48
Sat Flow, veh/h	1781	2167	1213	1781	3554	1530	3456	3179	393	3456	3554	1551
Grp Volume(v), veh/h	255	221	209	88	241	139	178	411	416	152	816	112
Grp Sat Flow(s),veh/h/ln	1781	1777	1604	1781	1777	1530	1728	1777	1795	1728	1777	1551
Q Serve(g_s), s	16.3	12.9	13.5	5.7	7.4	6.2	5.9	17.8	17.8	5.0	17.9	2.4
Cycle Q Clear(g_c), s	16.3	12.9	13.5	5.7	7.4	6.2	5.9	17.8	17.8	5.0	17.9	2.4
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	282	392	354	111	427	279	236	872	881	208	1715	748
V/C Ratio(X)	0.90	0.56	0.59	0.79	0.56	0.50	0.75	0.47	0.47	0.73	0.48	0.15
Avail Cap(c_a), veh/h	324	574	518	189	888	478	465	872	881	295	1715	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	40.2	40.5	53.7	48.2	21.0	53.1	19.6	19.6	53.6	20.2	4.5
Incr Delay (d2), s/veh	23.8	0.5	0.6	4.7	0.4	0.5	1.8	1.8	1.8	2.5	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	5.7	5.4	2.7	3.3	2.6	2.6	7.7	7.8	2.3	7.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	40.7	41.1	58.4	48.6	21.5	54.9	21.4	21.4	56.1	21.1	4.9
LnGrp LOS	E	D	D	E	D	C	D	C	C	E	C	A
Approach Vol, veh/h	685				468		1005				1080	
Approach Delay, s/veh	52.4				42.4		27.3				24.3	
Approach LOS	D				D		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	62.2	11.6	30.8	12.3	61.3	23.6	18.8				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	9.9	* 37	12.3	37.5	15.6	31.3	21.1	* 29				
Max Q Clear Time (g_c+I1), s	19.8	19.8	7.7	15.5	7.9	19.9	18.3	9.4				
Green Ext Time (p_c), s	0.0	1.8	0.0	1.0	0.1	2.0	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	525	149	228	222	72	170	172	559	118	228	83
Future Volume (veh/h)	74	525	149	228	222	72	170	172	559	118	228	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	565	160	245	239	77	183	185	601	127	245	89
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	942	593	313	557	455	213	1254	658	155	1138	421
Arrive On Green	0.06	0.27	0.27	0.09	0.30	0.30	0.12	0.35	0.35	0.09	0.32	0.32
Sat Flow, veh/h	1781	3554	1520	3456	1870	1526	1781	3554	1458	1781	3554	1314
Grp Volume(v), veh/h	80	565	160	245	239	77	183	185	601	127	245	89
Grp Sat Flow(s),veh/h/ln	1781	1777	1520	1728	1870	1526	1781	1777	1458	1781	1777	1314
Q Serve(g_s), s	5.1	15.9	8.3	7.9	11.8	4.3	11.5	4.1	40.4	8.0	5.8	5.7
Cycle Q Clear(g_c), s	5.1	15.9	8.3	7.9	11.8	4.3	11.5	4.1	40.4	8.0	5.8	5.7
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	103	942	593	313	557	455	213	1254	658	155	1138	421
V/C Ratio(X)	0.78	0.60	0.27	0.78	0.43	0.17	0.86	0.15	0.91	0.82	0.22	0.21
Avail Cap(c_a), veh/h	467	1241	721	905	653	533	467	1254	658	467	1241	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	53.2	36.8	24.2	51.0	32.4	29.7	49.4	25.3	30.2	51.4	28.4	28.4
Incr Delay (d2), s/veh	4.7	0.7	0.3	1.6	0.3	0.1	3.8	0.1	17.3	4.0	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 BackOfQ(50%),veh/ln	2.4	7.0	3.0	3.5	5.4	1.6	5.3	1.7	18.3	3.7	2.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	37.5	24.5	52.6	32.6	29.8	53.3	25.4	47.4	55.3	28.4	28.5
LnGrp LOS	E	D	C	D	C	C	D	C	D	E	C	C
Approach Vol, veh/h		805			561			969			461	
Approach Delay, s/veh		37.0			41.0			44.3			35.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8	36.3	19.1	43.4	12.0	40.0	15.4	47.1				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+l1), s	9.9	17.9	13.5	7.8	7.1	13.8	10.0	42.4				
Green Ext Time (p_c), s	0.4	5.4	0.2	1.3	0.1	1.1	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			40.1									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	75	0	123	69	0	73	26	641	30	68	530	16
Future Volume (veh/h)	75	0	123	69	0	73	26	641	30	68	530	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	0	140	78	0	83	30	728	34	77	602	18
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	42	267	523	0	531	49	1699	79	98	1872	56
Arrive On Green	0.29	0.00	0.29	0.29	0.00	0.29	0.03	0.34	0.34	0.06	0.37	0.37
Sat Flow, veh/h	414	145	921	1272	0	1531	1781	4997	233	1781	5094	152
Grp Volume(v), veh/h	225	0	0	78	0	83	30	495	267	77	402	218
Grp Sat Flow(s), veh/h/ln	1481	0	0	1272	0	1531	1781	1702	1826	1781	1702	1841
Q Serve(g_s), s	2.5	0.0	0.0	0.0	0.0	1.8	0.8	5.2	5.3	2.0	3.9	4.0
Cycle Q Clear(g_c), s	5.6	0.0	0.0	2.1	0.0	1.8	0.8	5.2	5.3	2.0	3.9	4.0
Prop In Lane	0.38		0.62	1.00		1.00	1.00		0.13	1.00		0.08
Lane Grp Cap(c), veh/h	536	0	0	523	0	531	49	1157	621	98	1251	677
V/C Ratio(X)	0.42	0.00	0.00	0.15	0.00	0.16	0.61	0.43	0.43	0.78	0.32	0.32
Avail Cap(c_a), veh/h	1347	0	0	1221	0	1399	1145	4375	2346	1145	4375	2366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	12.5	0.0	10.6	22.4	11.9	11.9	21.8	10.6	10.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.1	4.5	0.3	0.6	5.0	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.7	0.0	0.0	0.5	0.0	0.5	0.4	1.7	1.9	0.9	1.2	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.9	0.0	0.0	12.6	0.0	10.6	26.9	12.2	12.5	26.8	10.8	10.9
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	225			161			792			697		
Approach Delay, s/veh	13.9			11.6			12.9			12.6		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	21.3		18.4	5.7	22.6		18.4				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I4.0), s	14.0	7.3		7.6	2.8	6.0		4.1				
Green Ext Time (p_c), s	0.1	8.2		1.0	0.0	5.4		0.5				

Intersection Summary

HCM 6th Ctrl Delay 12.8

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	20	188	242	59	200	200	585	23	35	1260	71
Future Volume (veh/h)	154	20	188	242	59	200	200	585	23	35	1260	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.83	1.00		0.86	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	21	198	255	62	211	211	616	24	37	1326	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	306	215	277	403	293	239	1771	771	48	1360	77
Arrive On Green	0.10	0.16	0.16	0.16	0.22	0.22	0.13	0.50	0.50	0.03	0.40	0.40
Sat Flow, veh/h	1781	1870	1312	1781	1870	1361	1781	3554	1548	1781	3419	193
Grp Volume(v), veh/h	162	21	198	255	62	211	211	616	24	37	688	713
Grp Sat Flow(s),veh/h/ln	1781	1870	1312	1781	1870	1361	1781	1777	1548	1781	1777	1835
Q Serve(g_s), s	13.5	1.4	22.4	21.3	4.1	21.7	17.5	15.9	1.2	3.1	57.3	57.7
Cycle Q Clear(g_c), s	13.5	1.4	22.4	21.3	4.1	21.7	17.5	15.9	1.2	3.1	57.3	57.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	185	306	215	277	403	293	239	1771	771	48	707	730
V/C Ratio(X)	0.87	0.07	0.92	0.92	0.15	0.72	0.88	0.35	0.03	0.77	0.97	0.98
Avail Cap(c_a), veh/h	355	372	261	355	403	293	355	1771	771	355	707	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	66.5	53.3	62.1	62.7	48.0	54.9	64.1	22.9	19.3	72.9	44.6	44.7
Incr Delay (d2), s/veh	5.0	0.0	29.8	22.1	0.1	7.2	18.6	0.1	0.0	9.4	27.5	27.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.7	9.3	11.4	1.9	8.1	9.2	6.8	0.4	1.6	30.5	31.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	53.3	91.9	84.8	48.1	62.1	82.7	23.1	19.3	82.3	72.1	72.4
LnGrp LOS	E	D	F	F	D	E	F	C	B	F	E	E
Approach Vol, veh/h	381			528			851			1438		
Approach Delay, s/veh	81.1			71.4			37.8			72.5		
Approach LOS	F			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	83.8	27.9	29.6	24.6	68.7	20.1	37.4				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+15), s	15.1	17.9	23.3	24.4	19.5	59.7	15.5	23.7				
Green Ext Time (p_c), s	0.0	6.2	0.2	0.3	0.7	0.3	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay 64.1

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	240	34	212	82	0	0	0	0	533	89	39
Future Volume (veh/h)	0	240	34	212	82	0	0	0	0	533	89	39
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	258	37	228	88	0				642	0	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	259	516	227	393	751	0				927	0	642
Arrive On Green	0.00	0.15	0.15	0.22	0.22	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1781	3554	1563	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	258	37	228	88	0				642	0	42
Grp Sat Flow(s), veh/h/ln	1781	1777	1563	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	2.6	0.8	4.4	0.8	0.0				6.3	0.0	0.6
Cycle Q Clear(g_c), s	0.0	2.6	0.8	4.4	0.8	0.0				6.3	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	259	516	227	393	751	0				927	0	642
V/C Ratio(X)	0.00	0.50	0.16	0.58	0.12	0.00				0.69	0.00	0.07
Avail Cap(c_a), veh/h	2755	5497	2418	2755	5265	0				3214	0	1659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.3	14.5	13.5	12.1	0.0				12.9	0.0	7.0
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.5	0.1	0.0				0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.8	0.2	1.4	0.2	0.0				2.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.6	14.6	15.0	12.2	0.0				13.3	0.0	7.1
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	295			316			684					
Approach Delay, s/veh	15.4			14.2			12.9					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.6			16.3			12.9					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.6			8.3			6.4					
Green Ext Time (p_c), s	1.0			1.4			2.1					

Intersection Summary

HCM 6th Ctrl Delay 13.8

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	732	0	0	264	267	27	15	146	37	0	248
Future Volume (veh/h)	95	732	0	0	264	267	27	15	146	37	0	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	804	0	0	290	293	30	16	160	41	0	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	139	1428	0	0	463	413	272	22	221	49	0	326
Arrive On Green	0.08	0.40	0.00	0.00	0.26	0.26	0.15	0.15	0.15	0.24	0.00	0.24
Sat Flow, veh/h	1781	3647	0	0	1870	1585	1781	145	1448	206	0	1375
Grp Volume(v), veh/h	104	804	0	0	290	293	30	0	176	314	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1593	1581	0	0
Q Serve(g_s), s	4.1	12.4	0.0	0.0	10.2	11.9	1.0	0.0	7.5	13.4	0.0	0.0
Cycle Q Clear(g_c), s	4.1	12.4	0.0	0.0	10.2	11.9	1.0	0.0	7.5	13.4	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.91	0.13		0.87
Lane Grp Cap(c), veh/h	139	1428	0	0	463	413	272	0	244	374	0	0
V/C Ratio(X)	0.75	0.56	0.00	0.00	0.63	0.71	0.11	0.00	0.72	0.84	0.00	0.00
Avail Cap(c_a), veh/h	752	3001	0	0	1500	1338	1003	0	897	890	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.1	16.4	0.0	0.0	23.2	23.8	25.9	0.0	28.7	25.8	0.0	0.0
Incr Delay (d2), s/veh	9.2	0.1	0.0	0.0	1.7	2.7	0.1	0.0	1.5	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.3	0.0	0.0	4.0	4.3	0.4	0.0	2.8	5.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	16.6	0.0	0.0	24.9	26.6	26.0	0.0	30.2	27.8	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	908				583		206				314	
Approach Delay, s/veh	19.4				25.7		29.6				27.8	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	33.0		20.8		10.1		22.9		17.3			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	14.4		15.4		6.1		13.9		9.5			
Green Ext Time (p_c), s	3.5		1.4		0.3		4.6		0.8			

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	797	126	257	379	0	0	0	0	889	413	174
Future Volume (veh/h)	0	797	126	257	379	0	0	0	0	889	413	174
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	839	133	271	399	0				936	435	183
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1488	650	356	2040	0				1102	579	487
Arrive On Green	0.00	0.42	0.42	0.14	0.76	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3647	1553	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	839	133	271	399	0				936	435	183
Grp Sat Flow(s),veh/h/ln	0	1777	1553	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	15.1	4.6	6.3	2.6	0.0				20.7	17.6	7.6
Cycle Q Clear(g_c), s	0.0	15.1	4.6	6.3	2.6	0.0				20.7	17.6	7.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1488	650	356	2040	0				1102	579	487
V/C Ratio(X)	0.00	0.56	0.20	0.76	0.20	0.00				0.85	0.75	0.38
Avail Cap(c_a), veh/h	0	1488	650	703	2040	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.6	15.5	35.2	4.5	0.0				27.2	26.1	22.7
Incr Delay (d2), s/veh	0.0	1.4	0.6	1.2	0.2	0.0				3.7	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	1.6	2.5	0.8	0.0				9.0	7.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.0	16.2	36.5	4.8	0.0				30.9	28.7	22.8
LnGrp LOS	A	B	B	D	A	A				C	C	C
Approach Vol, veh/h		972			670						1554	
Approach Delay, s/veh		19.4			17.6						29.3	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.1	40.1		30.9		53.1						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	19.3	17.1		22.7		4.6						
Green Ext Time (p_c), s	0.3	2.0		3.3		2.9						

Intersection Summary

HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	312	1361	0	0	506	471	122	208	40	0	0	0
Future Volume (veh/h)	312	1361	0	0	506	471	122	208	40	0	0	0
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		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	328	1433	0	0	533	496	128	219	42			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1229	2660	0	0	1189	530	218	411	78			
Arrive On Green	0.71	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1616	3045	575			
Grp Volume(v), veh/h	328	1433	0	0	533	496	142	120	127			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1790	1702	1744			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	9.9	25.5	6.3	5.5	5.7			
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.0	9.9	25.5	6.3	5.5	5.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.90		0.33			
Lane Grp Cap(c), veh/h	1229	2660	0	0	1189	530	241	230	235			
V/C Ratio(X)	0.27	0.54	0.00	0.00	0.45	0.94	0.59	0.52	0.54			
Avail Cap(c_a), veh/h	1229	2660	0	0	1189	530	599	569	583			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.60	0.60	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.2	0.0	0.0	0.0	21.9	27.1	34.1	33.8	33.9			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.2	26.0	0.8	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.0	0.0	4.0	12.4	2.7	2.3	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	0.5	0.0	0.0	23.1	53.0	35.0	34.5	34.6			
LnGrp LOS	A	A	A	A	C	D	C	C	C			
Approach Vol, veh/h	1761				1029				389			
Approach Delay, s/veh	1.9				37.5				34.7			
Approach LOS	A				D				C			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	67.8				34.8		33.0		16.2			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	46.1				13.1		* 28		28.1			
Max Q Clear Time (g_c+I1), s	2.0				4.8		27.5		8.3			
Green Ext Time (p_c), s	17.2				0.7		0.4		1.4			

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	24	44	21	1196	25	0	0	0
Future Volume (veh/h)	0	0	0	0	24	44	21	1196	25	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	25	46	22	1259	26			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	33	60	117	3253	66			
Arrive On Green				0.00	0.06	0.06	0.66	0.66	0.66			
Sat Flow, veh/h				0	590	1085	29	4961	101			
Grp Volume(v), veh/h				0	0	71	479	397	431			
Grp Sat Flow(s),veh/h/ln				0	0	1675	1861	1549	1682			
Q Serve(g_s), s				0.0	0.0	1.6	0.0	4.6	4.6			
Cycle Q Clear(g_c), s				0.0	0.0	1.6	4.6	4.6	4.6			
Prop In Lane				0.00		0.65	0.05		0.06			
Lane Grp Cap(c), veh/h				0	0	93	1318	1016	1103			
V/C Ratio(X)				0.00	0.00	0.77	0.36	0.39	0.39			
Avail Cap(c_a), veh/h				0	0	1745	2989	2420	2628			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	17.9	3.1	3.1	3.1			
Incr Delay (d2), s/veh				0.0	0.0	4.9	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.6	0.5	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	22.8	3.3	3.4	3.4			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					71			1307				
Approach Delay, s/veh					22.8			3.4				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		30.8						7.6				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		6.6						3.6				
Green Ext Time (p_c), s		18.6						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.4									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	208	85	269	315	84	168	414	71	157	1019	53
Future Volume (veh/h)	107	208	85	269	315	84	168	414	71	157	1019	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	221	90	286	335	89	179	440	76	167	1084	56
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	318	269	319	383	102	211	1584	267	199	1757	91
Arrive On Green	0.08	0.17	0.17	0.18	0.27	0.27	0.12	0.36	0.36	0.11	0.35	0.35
Sat Flow, veh/h	1781	1870	1579	1781	1423	378	1781	4395	741	1781	4970	257
Grp Volume(v), veh/h	114	221	90	286	0	424	179	338	178	167	742	398
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	0	1801	1781	1702	1732	1781	1702	1822
Q Serve(g_s), s	6.7	11.8	5.3	16.7	0.0	23.9	10.5	7.5	7.8	9.8	19.2	19.2
Cycle Q Clear(g_c), s	6.7	11.8	5.3	16.7	0.0	23.9	10.5	7.5	7.8	9.8	19.2	19.2
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.43	1.00		0.14
Lane Grp Cap(c), veh/h	143	318	269	319	0	485	211	1227	624	199	1203	644
V/C Ratio(X)	0.80	0.69	0.34	0.90	0.00	0.88	0.85	0.28	0.28	0.84	0.62	0.62
Avail Cap(c_a), veh/h	503	704	594	503	0	678	503	1921	977	503	1921	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	48.1	41.5	38.8	42.7	0.0	37.2	45.9	24.1	24.2	46.3	28.4	28.4
Incr Delay (d2), s/veh	3.8	1.0	0.3	8.6	0.0	9.2	3.6	0.2	0.5	3.6	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	5.6	2.1	8.1	0.0	11.7	4.8	3.0	3.2	4.5	7.7	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	42.5	39.1	51.3	0.0	46.4	49.5	24.4	24.7	49.9	29.3	30.1
LnGrp LOS	D	D	D	D	A	D	D	C	C	D	C	C
Approach Vol, veh/h	425		710			695		1307				
Approach Delay, s/veh	44.3		48.4			30.9		32.2				
Approach LOS	D		D			C		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.3	43.6	23.4	23.0	17.0	42.9	12.9	33.5				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	11.8	9.8	18.7	13.8	12.5	21.2	8.7	25.9				
Green Ext Time (p_c), s	0.2	6.7	0.3	1.0	0.2	16.4	0.1	2.4				

Intersection Summary

HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2024 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	214	311	82	170	0	0	0	0	223	2073	334
Future Volume (veh/h)	0	214	311	82	170	0	0	0	0	223	2073	334
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	230	334	88	183	0				240	2229	359
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	449	380	164	435	0				1111	2777	434
Arrive On Green	0.00	0.24	0.24	0.24	0.24	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1581	408	1896	0				1781	4454	695
Grp Volume(v), veh/h	0	230	334	118	153	0				240	1687	901
Grp Sat Flow(s),veh/h/ln	0	1870	1581	602	1617	0				1781	1702	1745
Q Serve(g_s), s	0.0	10.2	19.4	9.8	7.6	0.0				5.6	35.3	38.3
Cycle Q Clear(g_c), s	0.0	10.2	19.4	20.0	7.6	0.0				5.6	35.3	38.3
Prop In Lane	0.00		1.00	0.75		0.00				1.00		0.40
Lane Grp Cap(c), veh/h	0	449	380	210	388	0				1111	2123	1088
V/C Ratio(X)	0.00	0.51	0.88	0.56	0.39	0.00				0.22	0.79	0.83
Avail Cap(c_a), veh/h	0	588	497	283	508	0				1120	2141	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.4	34.9	38.4	30.4	0.0				7.8	13.4	14.0
Incr Delay (d2), s/veh	0.0	0.3	11.4	1.7	0.5	0.0				0.2	2.4	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	8.6	2.8	3.0	0.0				2.0	12.6	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.7	46.3	40.1	30.9	0.0				8.0	15.8	19.8
LnGrp LOS	A	C	D	D	C	A				A	B	B
Approach Vol, veh/h		564			271						2828	
Approach Delay, s/veh		40.4			34.9						16.4	
Approach LOS		D			C						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				29.6		65.8		29.6				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				21.4		40.3		22.0				
Green Ext Time (p_c), s				1.1		19.2		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			21.4									
HCM 6th LOS			C									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2024 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	154	47	248	0	22	13	232	1291	47	0	0	0
Future Volume (veh/h)	154	47	248	0	22	13	232	1291	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	162	49	261	0	23	14	244	1359	49			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	378	88	1203	0	249	152	948	1861	67			
Arrive On Green	0.23	0.23	0.23	0.00	0.23	0.23	0.53	0.53	0.53			
Sat Flow, veh/h	1041	384	1568	0	1089	663	1781	3497	126			
Grp Volume(v), veh/h	211	0	261	0	0	37	244	690	718			
Grp Sat Flow(s),veh/h/ln	1424	0	1568	0	0	1751	1781	1777	1846			
Q Serve(g_s), s	5.5	0.0	0.0	0.0	0.0	0.8	3.4	13.6	13.6			
Cycle Q Clear(g_c), s	6.3	0.0	0.0	0.0	0.0	0.8	3.4	13.6	13.6			
Prop In Lane	0.77		1.00	0.00		0.38	1.00		0.07			
Lane Grp Cap(c), veh/h	466	0	1203	0	0	401	948	946	983			
V/C Ratio(X)	0.45	0.00	0.22	0.00	0.00	0.09	0.26	0.73	0.73			
Avail Cap(c_a), veh/h	1091	0	1873	0	0	1150	1151	1148	1192			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	16.1	0.0	1.6	0.0	0.0	13.9	5.8	8.2	8.2			
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.0	0.0	0.0	0.1	1.9	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			
%ile BackOfQ(50%),veh/ln	1.9	0.0	3.3	0.0	0.0	0.3	0.9	3.9	4.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.0	1.6	0.0	0.0	13.9	5.9	10.1	10.0			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h		472			37			1652				
Approach Delay, s/veh		8.4			13.9			9.4				
Approach LOS		A			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		28.8		16.9				16.9				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+l1), s		15.6		8.3				2.8				
Green Ext Time (p_c), s		8.7		2.2				0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2024 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	45	48	120	3	10	20	558	198	212	1270	22
Future Volume (veh/h)	30	45	48	120	3	10	20	558	198	212	1270	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	52	56	140	3	12	23	649	230	247	1477	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	198	213	364	78	313	38	2037	628	373	2508	44
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.02	0.40	0.40	0.11	0.49	0.49
Sat Flow, veh/h	1385	819	882	1276	324	1297	1781	5106	1574	3456	5166	91
Grp Volume(v), veh/h	35	0	108	140	0	15	23	649	230	247	973	530
Grp Sat Flow(s),veh/h/ln	1385	0	1701	1276	0	1622	1781	1702	1574	1728	1702	1853
Q Serve(g_s), s	1.2	0.0	3.0	5.9	0.0	0.4	0.8	5.2	6.1	4.1	12.2	12.2
Cycle Q Clear(g_c), s	1.6	0.0	3.0	9.0	0.0	0.4	0.8	5.2	6.1	4.1	12.2	12.2
Prop In Lane	1.00		0.52	1.00		0.80	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	447	0	411	364	0	392	38	2037	628	373	1652	899
V/C Ratio(X)	0.08	0.00	0.26	0.38	0.00	0.04	0.61	0.32	0.37	0.66	0.59	0.59
Avail Cap(c_a), veh/h	1048	0	1149	918	0	1096	903	5175	1595	1751	3450	1878
HCM Platoon Ratio	1.00	1.00	1.00	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	17.8	0.0	18.2	21.8	0.0	17.2	28.7	12.3	12.5	25.4	11.0	11.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.0	5.7	0.2	0.6	0.8	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.1	1.7	0.0	0.1	0.4	1.7	1.9	1.6	3.7	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	18.3	22.0	0.0	17.2	34.4	12.4	13.2	26.1	11.3	11.6
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h	143				155		902		1750			
Approach Delay, s/veh	18.2				21.6		13.2		13.5			
Approach LOS	B				C		B		B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	0.8	29.3	19.1		5.7	34.4	19.1					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	10.6	8.1	5.0		2.8	14.2	11.0					
Green Ext Time (p_c), s	0.4	11.4	0.5		0.0	14.5	0.3					

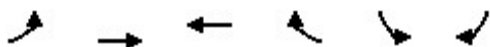
Intersection Summary

HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	3168	12	0	1605	0	1
Future Vol, veh/h	3168	12	0	1605	0	1
Conflicting Peds, #/hr	0	1	1	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	98	98	98	98	98	98
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	3233	12	0	1638	0	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1624
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	78
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	78
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		51.8		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	78	-	-	-		
HCM Lane V/C Ratio	0.013	-	-	-		
HCM Control Delay (s)	51.8	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↰	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1187	2024	1625	136	86	42
Future Volume (veh/h)	1187	2024	1625	136	86	42
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1236	2108	1693	0	90	44
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1072	4207	2475		120	106
Arrive On Green	0.31	0.84	0.50	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1236	2108	1693	0	90	44
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	36.6	13.5	30.6	0.0	5.9	3.1
Cycle Q Clear(g_c), s	36.6	13.5	30.6	0.0	5.9	3.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1072	4207	2475		120	106
V/C Ratio(X)	1.15	0.50	0.68		0.75	0.41
Avail Cap(c_a), veh/h	1072	4207	2475		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.78	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	2.5	22.7	0.0	54.1	52.8
Incr Delay (d2), s/veh	79.8	0.4	1.2	0.0	3.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.7	2.1	11.3	0.0	2.7	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	120.5	2.9	23.9	0.0	57.6	53.8
LnGrp LOS	F	A	C		E	D
Approach Vol, veh/h		3344	1693	A	134	
Approach Delay, s/veh		46.4	23.9		56.4	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.9		13.1	41.0	63.9
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	36.6	* 37
Max Q Clear Time (g_c+I1), s		15.5		7.9	38.6	32.6
Green Ext Time (p_c), s		56.9		0.2	0.0	4.0

Intersection Summary

HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2024 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	294	1279	89	102	715	109	94	295	144	203	753	549
Future Volume (veh/h)	294	1279	89	102	715	109	94	295	144	203	753	549
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	342	1487	103	119	831	127	109	343	167	236	876	638
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	1634	113	152	1142	174	131	475	216	258	1072	657
Arrive On Green	0.21	0.48	0.48	0.03	0.12	0.12	0.07	0.14	0.14	0.14	0.21	0.21
Sat Flow, veh/h	1781	3369	232	1781	3089	472	1781	3421	1553	1781	5106	1566
Grp Volume(v), veh/h	342	781	809	119	478	480	109	341	169	236	876	638
Grp Sat Flow(s),veh/h/ln	1781	1777	1825	1781	1777	1784	1781	1702	1571	1781	1702	1566
Q Serve(g_s), s	26.4	56.5	57.5	9.3	36.3	36.3	8.5	13.4	14.5	18.3	22.9	29.4
Cycle Q Clear(g_c), s	26.4	56.5	57.5	9.3	36.3	36.3	8.5	13.4	14.5	18.3	22.9	29.4
Prop In Lane	1.00		0.13	1.00		0.26	1.00		0.99	1.00		1.00
Lane Grp Cap(c), veh/h	368	862	885	152	657	659	131	472	218	258	1072	657
V/C Ratio(X)	0.93	0.91	0.91	0.78	0.73	0.73	0.83	0.72	0.77	0.91	0.82	0.97
Avail Cap(c_a), veh/h	440	862	885	152	657	659	154	511	236	262	1072	657
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.99	0.99	0.99	0.83	0.83	0.83
Uniform Delay (d), s/veh	54.5	33.1	33.4	66.7	54.7	54.7	64.0	57.7	58.2	59.0	52.7	40.1
Incr Delay (d2), s/veh	23.7	14.9	15.5	29.2	6.3	6.3	23.5	4.7	14.1	28.8	4.4	25.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	26.8	28.1	5.6	18.5	18.6	4.7	6.1	6.6	10.3	10.2	25.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.3	48.0	48.9	95.9	61.0	60.9	87.5	62.4	72.3	87.8	57.2	65.3
LnGrp LOS	E	D	D	F	E	E	F	E	E	F	E	E
Approach Vol, veh/h	1932			1077			619			1750		
Approach Delay, s/veh	53.7			64.8			69.5			64.3		
Approach LOS	D			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.7	24.4	17.8	73.1	14.7	34.4	33.3	57.5				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	20.6	* 21	11.6	* 68	12.1	29.4	34.6	44.3				
Max Q Clear Time (g_c+20.3), s	20.3	16.5	11.3	59.5	10.5	31.4	28.4	38.3				
Green Ext Time (p_c), s	0.0	1.4	0.0	6.8	0.0	0.0	0.6	2.7				

Intersection Summary

HCM 6th Ctrl Delay	61.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑↑	↔
Traffic Volume (veh/h)	0	1393	153	37	184	0	0	0	0	293	655	770
Future Volume (veh/h)	0	1393	153	37	184	0	0	0	0	293	655	770
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1482	163	39	196	0				312	697	819
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2070	226	64	2516	0				534	1307	522
Arrive On Green	0.00	0.43	0.43	0.04	0.71	0.00				0.33	0.33	0.33
Sat Flow, veh/h	0	3324	352	1781	3647	0				1603	3928	1569
Grp Volume(v), veh/h	0	809	836	39	196	0				348	661	819
Grp Sat Flow(s),veh/h/ln	0	1777	1806	1781	1777	0				1790	1870	1569
Q Serve(g_s), s	0.0	52.3	53.6	3.0	2.4	0.0				22.6	20.0	46.6
Cycle Q Clear(g_c), s	0.0	52.3	53.6	3.0	2.4	0.0				22.6	20.0	46.6
Prop In Lane	0.00		0.19	1.00		0.00				0.90		1.00
Lane Grp Cap(c), veh/h	0	1139	1157	64	2516	0				596	1245	522
V/C Ratio(X)	0.00	0.71	0.72	0.61	0.08	0.00				0.58	0.53	1.57
Avail Cap(c_a), veh/h	0	1139	1157	79	2516	0				596	1245	522
HCM Platoon Ratio	1.00	0.67	0.67	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.27	0.27	0.78	0.78	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	29.3	29.6	66.5	6.3	0.0				38.7	37.8	46.7
Incr Delay (d2), s/veh	0.0	1.0	1.1	2.7	0.0	0.0				4.2	1.6	264.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	23.6	24.5	1.4	0.8	0.0				10.8	9.6	56.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.3	30.7	69.2	6.4	0.0				42.8	39.5	311.4
LnGrp LOS	A	C	C	E	A	A				D	D	F
Approach Vol, veh/h		1645			235						1828	
Approach Delay, s/veh		30.5			16.8						162.0	
Approach LOS		C			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	96.8		52.0		106.3						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	6.2	* 73		46.6		81.4						
Max Q Clear Time (g_c+I1), s	15.0	55.6		48.6		4.4						
Green Ext Time (p_c), s	0.0	3.8		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	94.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↱			
Traffic Volume (veh/h)	753	901	0	0	188	159	42	244	122	0	0	0
Future Volume (veh/h)	753	901	0	0	188	159	42	244	122	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	810	969	0	0	202	171	45	262	131			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1448	1366	0	0	469	376	75	459	215			
Arrive On Green	0.42	0.73	0.00	0.00	0.25	0.25	0.15	0.15	0.15			
Sat Flow, veh/h	3456	1870	0	0	1967	1503	506	3115	1461			
Grp Volume(v), veh/h	810	969	0	0	191	182	164	143	131			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1600	1845	1777	1461			
Q Serve(g_s), s	14.2	23.2	0.0	0.0	7.2	7.7	6.7	6.0	6.7			
Cycle Q Clear(g_c), s	14.2	23.2	0.0	0.0	7.2	7.7	6.7	6.0	6.7			
Prop In Lane	1.00		0.00	0.00		0.94	0.27		1.00			
Lane Grp Cap(c), veh/h	1448	1366	0	0	444	400	272	262	215			
V/C Ratio(X)	0.56	0.71	0.00	0.00	0.43	0.45	0.60	0.55	0.61			
Avail Cap(c_a), veh/h	1448	1366	0	0	491	442	484	466	384			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.34	0.34	0.00	0.00	1.00	1.00	0.95	0.95	0.95			
Uniform Delay (d), s/veh	17.6	6.0	0.0	0.0	25.2	25.4	31.9	31.6	32.0			
Incr Delay (d2), s/veh	0.2	1.1	0.0	0.0	0.2	0.3	0.8	0.6	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	5.7	0.0	0.0	2.9	2.8	3.0	2.6	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	7.1	0.0	0.0	25.4	25.7	32.7	32.3	32.9			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	1779				373		438					
Approach Delay, s/veh	12.0				25.6		32.6					
Approach LOS	B				C		C					
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	63.3				38.4		24.9		16.7			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	49.2				22.7		* 22		21.0			
Max Q Clear Time (g_c+I1), s	25.2				16.2		9.7		8.7			
Green Ext Time (p_c), s	4.8				1.8		1.1		1.2			

Intersection Summary

HCM 6th Ctrl Delay 17.4

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	←	←	←	←	←
Traffic Volume (veh/h)	185	1091	641	0	0	2209
Future Volume (veh/h)	185	1091	641	0	0	2209
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	193	0	668	0	0	2301
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	225		3041	0	240	4929
Arrive On Green	0.13	0.00	0.61	0.00	0.00	0.78
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	193	0	668	0	0	2301
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.7	0.0	6.6	0.0	0.0	13.7
Cycle Q Clear(g_c), s	11.7	0.0	6.6	0.0	0.0	13.7
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	225		3041	0	240	4929
V/C Ratio(X)	0.86		0.22	0.00	0.00	0.47
Avail Cap(c_a), veh/h	536		3041	0	609	4929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.00	0.94	0.00	0.00	0.83
Uniform Delay (d), s/veh	47.1	0.0	9.7	0.0	0.0	4.0
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	2.2	0.0	0.0	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.9	0.0	9.7	0.0	0.0	4.3
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	193	A	668			2301
Approach Delay, s/veh	49.9		9.7			4.3
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	19.2	72.0			91.2	18.8
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	37.6	25.1			67.1	33.1
Max Q Clear Time (g_c+10), s	10.6	8.6			15.7	13.7
Green Ext Time (p_c), s	0.0	5.3			37.2	0.2

Intersection Summary

HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2024 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	176	1129	102	132	414	0	0	868	55
Future Volume (veh/h)	0	0	0	176	1129	102	132	414	0	0	868	55
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				185	1188	107	139	436	0	0	914	58
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				261	1793	166	168	1928	0	0	1103	70
Arrive On Green				0.14	0.14	0.14	0.19	0.76	0.00	0.00	0.23	0.23
Sat Flow, veh/h				627	4306	399	1781	5274	0	0	5066	310
Grp Volume(v), veh/h				542	457	481	139	436	0	0	634	338
Grp Sat Flow(s),veh/h/ln				1839	1702	1790	1781	1702	0	0	1702	1804
Q Serve(g_s), s				31.0	27.9	27.9	8.3	2.8	0.0	0.0	19.5	19.6
Cycle Q Clear(g_c), s				31.0	27.9	27.9	8.3	2.8	0.0	0.0	19.5	19.6
Prop In Lane				0.34		0.22	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				766	709	745	168	1928	0	0	767	406
V/C Ratio(X)				0.71	0.64	0.64	0.83	0.23	0.00	0.00	0.83	0.83
Avail Cap(c_a), veh/h				766	709	745	274	2432	0	0	916	485
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.83	0.83	0.83	0.64	0.64	0.00	0.00	0.46	0.46
Uniform Delay (d), s/veh				41.1	39.7	39.7	43.8	8.7	0.0	0.0	40.6	40.6
Incr Delay (d2), s/veh				4.6	3.7	3.6	3.1	0.0	0.0	0.0	2.4	4.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				16.2	13.5	14.1	3.4	0.9	0.0	0.0	8.3	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.6	43.5	43.3	46.9	8.8	0.0	0.0	43.0	45.1
LnGrp LOS				D	D	D	D	A	A	A	D	D
Approach Vol, veh/h					1480			575			972	
Approach Delay, s/veh					44.2			18.0			43.7	
Approach LOS					D			B			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.2	31.2		51.7	47.4				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				16.9	* 30		45.8	52.4				
Max Q Clear Time (g_c+I1), s				10.3	21.6		33.0	4.8				
Green Ext Time (p_c), s				0.1	3.2		6.4	3.6				

Intersection Summary

HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	259	1360	0	0	0	0	0	498	72
Future Volume (veh/h)	0	0	0	259	1360	0	0	0	0	0	498	72
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				270	1417	0				0	519	75
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				508	2862	0				0	1191	169
Arrive On Green				0.21	0.21	0.00				0.00	0.26	0.26
Sat Flow, veh/h				789	4615	0				0	4670	638
Grp Volume(v), veh/h				627	1060	0				0	390	204
Grp Sat Flow(s),veh/h/ln				1831	1702	0				0	1702	1735
Q Serve(g_s), s				33.4	30.1	0.0				0.0	10.5	10.8
Cycle Q Clear(g_c), s				33.4	30.1	0.0				0.0	10.5	10.8
Prop In Lane				0.43		0.00				0.00		0.37
Lane Grp Cap(c), veh/h				1178	2191	0				0	901	459
V/C Ratio(X)				0.53	0.48	0.00				0.00	0.43	0.44
Avail Cap(c_a), veh/h				1178	2191	0				0	901	459
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.6	27.3	0.0				0.0	33.6	33.7
Incr Delay (d2), s/veh				1.7	0.8	0.0				0.0	1.5	3.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				16.9	13.9	0.0				0.0	4.6	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	28.0	0.0				0.0	35.1	36.8
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					1687						594	
Approach Delay, s/veh					28.9						35.7	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				34.0		76.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				29.1		70.8						
Max Q Clear Time (g_c+I1), s				12.8		35.4						
Green Ext Time (p_c), s				0.9		2.6						
Intersection Summary												
HCM 6th Ctrl Delay				30.7								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1537	100	91	191	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1537	100	91	191	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1585	103	94	197	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3229	210	271	614	0			
Arrive On Green				0.00	0.22	0.22	0.08	0.08	0.00			
Sat Flow, veh/h				0	5067	318	1101	2585	0			
Grp Volume(v), veh/h				0	1101	587	155	136	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1813	1815	1777	0			
Q Serve(g_s), s				0.0	31.2	31.2	8.9	7.9	0.0			
Cycle Q Clear(g_c), s				0.0	31.2	31.2	8.9	7.9	0.0			
Prop In Lane				0.00		0.18	0.61		0.00			
Lane Grp Cap(c), veh/h				0	2244	1195	447	438	0			
V/C Ratio(X)				0.00	0.49	0.49	0.35	0.31	0.00			
Avail Cap(c_a), veh/h				0	2244	1195	447	438	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	26.9	26.9	42.2	41.7	0.0			
Incr Delay (d2), s/veh				0.0	0.8	1.4	2.1	1.8	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	14.4	15.6	4.6	3.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	27.6	28.3	44.3	43.6	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					1688			291				
Approach Delay, s/veh					27.9			43.9				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						78.0		32.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						72.5		27.1				
Max Q Clear Time (g_c+I1), s						33.2		10.9				
Green Ext Time (p_c), s						17.6		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				30.2								
HCM 6th LOS				C								

SDCRAA ADP EIR
22: Columbia St & Hawthorn St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	238	1626	0	0	0	0	0	520	53
Future Volume (veh/h)	0	0	0	238	1626	0	0	0	0	0	520	53
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				253	1730	0				0	553	56
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				387	2840	0				0	1037	456
Arrive On Green				0.20	0.20	0.00				0.00	0.29	0.29
Sat Flow, veh/h				629	4782	0				0	3647	1562
Grp Volume(v), veh/h				740	1243	0				0	553	56
Grp Sat Flow(s),veh/h/ln				1839	1702	0				0	1777	1562
Q Serve(g_s), s				40.7	36.4	0.0				0.0	14.4	2.9
Cycle Q Clear(g_c), s				40.7	36.4	0.0				0.0	14.4	2.9
Prop In Lane				0.34		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1132	2095	0				0	1037	456
V/C Ratio(X)				0.65	0.59	0.00				0.00	0.53	0.12
Avail Cap(c_a), veh/h				1132	2095	0				0	1037	456
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				33.1	31.4	0.0				0.0	32.7	28.6
Incr Delay (d2), s/veh				2.9	1.2	0.0				0.0	2.0	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.9	16.9	0.0				0.0	6.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.0	32.6	0.0				0.0	34.6	29.2
LnGrp LOS				D	C	A				A	C	C
Approach Vol, veh/h					1983						609	
Approach Delay, s/veh					33.9						34.1	
Approach LOS					C						C	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				37.0		73.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				32.1		67.7						
Max Q Clear Time (g_c+l1), s				16.4		42.7						
Green Ext Time (p_c), s				3.7		16.8						
Intersection Summary												
HCM 6th Ctrl Delay											33.9	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1839	66	42	95	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1839	66	42	95	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1936	69	44	100	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3566	127	209	513	0			
Arrive On Green				0.00	0.70	0.70	0.20	0.20	0.00			
Sat Flow, veh/h				0	5230	180	1040	2649	0			
Grp Volume(v), veh/h				0	1301	704	77	67	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1838	1818	1777	0			
Q Serve(g_s), s				0.0	20.1	20.2	3.9	3.4	0.0			
Cycle Q Clear(g_c), s				0.0	20.1	20.2	3.9	3.4	0.0			
Prop In Lane				0.00		0.10	0.57		0.00			
Lane Grp Cap(c), veh/h				0	2398	1295	365	357	0			
V/C Ratio(X)				0.00	0.54	0.54	0.21	0.19	0.00			
Avail Cap(c_a), veh/h				0	2398	1295	365	357	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	7.8	7.8	36.7	36.5	0.0			
Incr Delay (d2), s/veh				0.0	0.9	1.6	1.3	1.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.7	7.6	1.9	1.6	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	8.7	9.4	38.0	37.7	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					2005			144				
Approach Delay, s/veh					8.9			37.8				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						83.0		27.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.5		22.1				
Max Q Clear Time (g_c+I1), s						22.2		5.9				
Green Ext Time (p_c), s						26.7		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				10.9								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	176	650	3	103	0	0	0	25
Future Vol, veh/h	0	0	0	0	176	650	3	103	0	0	0	25
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	183	677	3	107	0	0	0	26
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	92	860	-	-	-	430
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	92	860	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	882	292	0	0	0	573
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	905	371	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	842	292	-	-	-	573
Mov Cap-2 Maneuver				-	-	-	842	292	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	864	371	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		24.3		11.6				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	292	-	-	573								
HCM Lane V/C Ratio	0.367	-	-	0.045								
HCM Control Delay (s)	24.3	-	-	11.6								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.6	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	631	141	1238	1190	0
Future Volume (veh/h)	0	0	0	0	0	0	0	631	141	1238	1190	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.92	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	644	144	1263	1214	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1932	565	2638	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.39	0.39	0.53	0.95	0.00
Sat Flow, veh/h		0					0	5149	1456	5023	1826	0
Grp Volume(v), veh/h		0.0					0	644	144	1263	1214	0
Grp Sat Flow(s),veh/h/ln							0	1662	1456	1674	1826	0
Q Serve(g_s), s							0.0	10.0	7.4	17.5	10.3	0.0
Cycle Q Clear(g_c), s							0.0	10.0	7.4	17.5	10.3	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1932	565	2638	1740	0
V/C Ratio(X)							0.00	0.33	0.26	0.48	0.70	0.00
Avail Cap(c_a), veh/h							0	1932	565	2638	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.85	0.85	0.00
Uniform Delay (d), s/veh							0.0	23.7	22.9	16.6	0.4	0.0
Incr Delay (d2), s/veh							0.0	0.3	0.6	0.1	2.0	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	3.8	2.5	6.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	23.9	23.5	16.7	2.4	0.0
LnGrp LOS							A	C	C	B	A	A
Approach Vol, veh/h								788			2477	
Approach Delay, s/veh								23.9			9.7	
Approach LOS								C			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	62.2	47.8					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	24.0	* 41					68.8					
Max Q Clear Time (g_c+l1), s	19.5	12.0					12.3					
Green Ext Time (p_c), s	2.2	10.5					22.1					
Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	59	1331	62	0	0	0	0	443	239	214	868	0
Future Volume (veh/h)	59	1331	62	0	0	0	0	443	239	214	868	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	60	1358	63				0	452	244	218	886	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	110	2656	827				0	691	299	246	1944	0
Arrive On Green	0.17	0.17	0.17				0.00	0.20	0.20	0.28	0.76	0.00
Sat Flow, veh/h	210	5054	1573				0	3572	1475	1781	5274	0
Grp Volume(v), veh/h	532	886	63				0	452	244	218	886	0
Grp Sat Flow(s),veh/h/ln	1860	1702	1573				0	1702	1475	1781	1702	0
Q Serve(g_s), s	28.7	25.9	3.7				0.0	13.4	17.4	12.9	7.0	0.0
Cycle Q Clear(g_c), s	28.7	25.9	3.7				0.0	13.4	17.4	12.9	7.0	0.0
Prop In Lane	0.11		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	978	1789	827				0	691	299	246	1944	0
V/C Ratio(X)	0.54	0.50	0.08				0.00	0.65	0.82	0.89	0.46	0.00
Avail Cap(c_a), veh/h	978	1789	827				0	839	363	479	2813	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.52	0.52	0.00
Uniform Delay (d), s/veh	33.4	32.3	23.1				0.0	40.3	41.9	39.0	9.0	0.0
Incr Delay (d2), s/veh	0.2	0.1	0.0				0.0	1.5	11.7	2.3	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 BackOfQ(50%),veh/ln	4.3	11.8	1.4				0.0	5.7	7.2	4.9	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	32.4	23.1				0.0	41.8	53.6	41.3	9.0	0.0
LnGrp LOS	C	C	C				A	D	D	D	A	A
Approach Vol, veh/h	1481						696			1104		
Approach Delay, s/veh	32.4						45.9			15.4		
Approach LOS	C						D			B		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	62.7			47.3			19.6		27.7			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	39.1			60.6			29.6		* 27			
Max Q Clear Time (g_c+l1), s	30.7			9.0			14.9		19.4			
Green Ext Time (p_c), s	6.7			5.6			0.3		2.9			

Intersection Summary

HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1795	46	0	0	0	0	0	0	276	499	0
Future Volume (veh/h)	0	1795	46	0	0	0	0	0	0	276	499	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1973	51							303	548	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2841	73							615	1229	0
Arrive On Green	0.00	0.18	0.18							0.12	0.12	0.00
Sat Flow, veh/h	0	5283	132							1729	3627	0
Grp Volume(v), veh/h	0	1312	712							313	538	0
Grp Sat Flow(s),veh/h/ln	0	1702	1843							1784	1702	0
Q Serve(g_s), s	0.0	39.7	39.8							18.1	16.2	0.0
Cycle Q Clear(g_c), s	0.0	39.7	39.8							18.1	16.2	0.0
Prop In Lane	0.00		0.07							0.97		0.00
Lane Grp Cap(c), veh/h	0	1891	1024							634	1210	0
V/C Ratio(X)	0.00	0.69	0.70							0.49	0.44	0.00
Avail Cap(c_a), veh/h	0	1891	1024							634	1210	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	36.2	36.2							39.3	38.4	0.0
Incr Delay (d2), s/veh	0.0	2.1	3.9							2.7	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.6	20.7							9.1	7.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	38.3	40.1							42.0	39.6	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2024									851	
Approach Delay, s/veh		38.9									40.5	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		66.0	44.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		61.1	39.1									
Max Q Clear Time (g_c+l1), s		41.8	20.1									
Green Ext Time (p_c), s		6.4	2.3									
Intersection Summary												
HCM 6th Ctrl Delay			39.4									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	72	2272	0	0	0	0	0	202	244	0	0	0
Future Volume (veh/h)	72	2272	0	0	0	0	0	202	244	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.95			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	79	2497	0				0	222	268			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	94	3167	0				0	519	440			
Arrive On Green	0.20	0.20	0.00				0.00	0.29	0.29			
Sat Flow, veh/h	152	5283	0				0	1870	1507			
Grp Volume(v), veh/h	969	1607	0				0	222	268			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1507			
Q Serve(g_s), s	55.0	49.0	0.0				0.0	11.1	16.9			
Cycle Q Clear(g_c), s	55.0	49.0	0.0				0.0	11.1	16.9			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1153	2107	0				0	519	440			
V/C Ratio(X)	0.84	0.76	0.00				0.00	0.43	0.61			
Avail Cap(c_a), veh/h	1153	2107	0				0	519	440			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	38.5	36.1	0.0				0.0	31.5	33.6			
Incr Delay (d2), s/veh	7.4	2.7	0.0				0.0	2.6	6.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	29.7	23.0	0.0				0.0	5.2	6.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	38.8	0.0				0.0	34.1	39.7			
LnGrp LOS	D	D	A				A	C	D			
Approach Vol, veh/h	2576					490						
Approach Delay, s/veh	41.5					37.2						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	73.0					37.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	68.1					32.1						
Max Q Clear Time (g_c+l1), s	57.0					18.9						
Green Ext Time (p_c), s	10.2					2.7						
Intersection Summary												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2749	70	0	0	0	0	0	0	347	404	0
Future Volume (veh/h)	0	2749	70	0	0	0	0	0	0	347	404	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2988	76							377	439	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3123	79							536	1069	0
Arrive On Green	0.00	0.20	0.20							0.10	0.10	0.00
Sat Flow, veh/h	0	5288	129							1781	3647	0
Grp Volume(v), veh/h	0	1977	1087							377	439	0
Grp Sat Flow(s),veh/h/ln	0	1702	1845							1781	1777	0
Q Serve(g_s), s	0.0	63.1	64.2							22.5	12.8	0.0
Cycle Q Clear(g_c), s	0.0	63.1	64.2							22.5	12.8	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	2076	1125							536	1069	0
V/C Ratio(X)	0.00	0.95	0.97							0.70	0.41	0.00
Avail Cap(c_a), veh/h	0	2076	1125							536	1069	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	42.3	42.8							44.8	40.4	0.0
Incr Delay (d2), s/veh	0.0	11.3	19.7							7.5	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	31.9	37.8							11.9	6.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	53.7	62.5							52.3	41.5	0.0
LnGrp LOS	A	D	E							D	D	A
Approach Vol, veh/h		3064									816	
Approach Delay, s/veh		56.8									46.5	
Approach LOS		E									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		72.0	38.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		67.1	33.1									
Max Q Clear Time (g_c+l1), s		66.2	24.5									
Green Ext Time (p_c), s		0.9	2.8									
Intersection Summary												
HCM 6th Ctrl Delay			54.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	46	2716	0	0	0	0	0	99	77	0	0	0
Future Volume (veh/h)	46	2716	0	0	0	0	0	99	77	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	54	3195	0				0	116	91			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	60	3778	0				0	359	260			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	82	5356	0				0	2060	1424			
Grp Volume(v), veh/h	1223	2026	0				0	104	103			
Grp Sat Flow(s),veh/h/ln	1866	1702	0				0	1777	1614			
Q Serve(g_s), s	69.9	61.9	0.0				0.0	5.6	6.1			
Cycle Q Clear(g_c), s	69.9	61.9	0.0				0.0	5.6	6.1			
Prop In Lane	0.04		0.00				0.00		0.88			
Lane Grp Cap(c), veh/h	1359	2479	0				0	325	295			
V/C Ratio(X)	0.90	0.82	0.00				0.00	0.32	0.35			
Avail Cap(c_a), veh/h	1359	2479	0				0	325	295			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	37.9	34.9	0.0				0.0	39.0	39.2			
Incr Delay (d2), s/veh	9.8	3.1	0.0				0.0	2.6	3.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	29.2	0.0				0.0	2.7	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	38.0	0.0				0.0	41.6	42.5			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h	3249					207						
Approach Delay, s/veh	41.6					42.0						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	85.0					25.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	80.1					20.1						
Max Q Clear Time (g_c+I1), s	71.9					8.1						
Green Ext Time (p_c), s	8.1					0.9						
Intersection Summary												
HCM 6th Ctrl Delay			41.7									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑
Traffic Volume (veh/h)	22	1065	857	56	149	176
Future Volume (veh/h)	22	1065	857	56	149	176
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	24	1158	932	61	162	191
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	33	3834	3410	223	485	222
Arrive On Green	0.02	0.77	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	4945	312	3456	1585
Grp Volume(v), veh/h	24	1158	647	346	162	191
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1770	1728	1585
Q Serve(g_s), s	1.6	8.2	0.0	0.0	5.0	13.9
Cycle Q Clear(g_c), s	1.6	8.2	0.0	0.0	5.0	13.9
Prop In Lane	1.00			0.18	1.00	1.00
Lane Grp Cap(c), veh/h	33	3834	2371	1262	485	222
V/C Ratio(X)	0.73	0.30	0.27	0.27	0.33	0.86
Avail Cap(c_a), veh/h	160	3834	2371	1262	1233	566
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	57.6	4.1	0.0	0.0	45.8	49.6
Incr Delay (d2), s/veh	10.2	0.2	0.3	0.5	0.1	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.1	0.1	0.2	2.2	11.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.8	4.3	0.3	0.5	45.9	53.3
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1182	993		353	
Approach Delay, s/veh		5.6	0.3		49.9	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.6		21.4	6.6	90.0
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 65		42.1	10.6	50.2
Max Q Clear Time (g_c+I1), s		10.2		15.9	3.6	2.0
Green Ext Time (p_c), s		27.2		0.6	0.0	18.9
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑ ↱			↰ ↑↑ ↱		↰	↰	↰		↰ ↱ ↱	↱	
Traffic Volume (veh/h)	125	1091	18	17	859	11	0	13	27	89	0	16
Future Volume (veh/h)	125	1091	18	17	859	11	0	13	27	89	0	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	1254	21	20	987	0	0	15	31	102	0	18
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	729	3538	59	60	1563		62	19	39	214	0	98
Arrive On Green	0.82	1.00	1.00	0.03	0.31	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5049	85	1781	4985	1585	1781	541	1117	3456	0	1577
Grp Volume(v), veh/h	144	825	450	20	987	0	0	0	46	102	0	18
Grp Sat Flow(s), veh/h/ln	1781	1662	1811	1781	1662	1585	1781	0	1658	1728	0	1577
Q Serve(g_s), s	2.1	0.0	0.0	1.3	20.0	0.0	0.0	0.0	3.3	3.4	0.0	1.3
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.3	20.0	0.0	0.0	0.0	3.3	3.4	0.0	1.3
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	729	2329	1269	60	1563		62	0	58	214	0	98
V/C Ratio(X)	0.20	0.35	0.35	0.33	0.63		0.00	0.00	0.80	0.48	0.00	0.18
Avail Cap(c_a), veh/h	729	2329	1269	100	1563		110	0	103	999	0	456
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	0.0	0.0	55.7	34.7	0.0	0.0	0.0	56.5	53.5	0.0	52.5
Incr Delay (d2), s/veh	0.0	0.4	0.7	1.2	2.0	0.0	0.0	0.0	9.0	0.6	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 BackOfQ(50%), veh/ln	0.7	0.1	0.3	0.6	8.1	0.0	0.0	0.0	1.5	1.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.6	0.4	0.7	56.9	36.6	0.0	0.0	0.0	65.6	54.1	0.0	52.8
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1419			1007			46			120		
Approach Delay, s/veh	1.1			37.0			65.6			53.9		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.4			12.2	54.0	42.8		9.0				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	60.6	50.1		34.1	19.6	* 37		7.3				
Max Q Clear Time (g_c+1), s	13.3	2.0		5.4	4.1	22.0		5.3				
Green Ext Time (p_c), s	0.0	21.4		0.2	0.1	8.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	1379	130	284	1023	0	144	30	332	0	22	103
Future Volume (veh/h)	148	1379	130	284	1023	0	144	30	332	0	22	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	159	1483	140	305	1100	0	155	32	0	0	24	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	707	3010	1058	361	1900	0	221	119		0	111	150
Arrive On Green	0.40	0.60	0.60	0.10	0.30	0.00	0.06	0.06	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2536
Grp Volume(v), veh/h	159	1483	140	305	1100	0	155	32	0	0	24	111
Grp Sat Flow(s), veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1268
Q Serve(g_s), s	7.0	19.8	3.8	10.2	17.5	0.0	5.2	1.9	0.0	0.0	1.4	5.1
Cycle Q Clear(g_c), s	7.0	19.8	3.8	10.2	17.5	0.0	5.2	1.9	0.0	0.0	1.4	5.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	707	3010	1058	361	1900	0	221	119		0	111	150
V/C Ratio(X)	0.22	0.49	0.13	0.85	0.58	0.00	0.70	0.27		0.00	0.22	0.74
Avail Cap(c_a), veh/h	707	3010	1058	398	1900	0	1084	586		0	111	150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	13.2	7.1	51.9	34.8	0.0	54.1	52.6	0.0	0.0	52.9	54.6
Incr Delay (d2), s/veh	0.1	0.6	0.3	1.4	0.1	0.0	1.5	0.4	0.0	0.0	1.0	17.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.8	6.8	1.5	4.4	6.4	0.0	2.3	0.9	0.0	0.0	0.7	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.6	13.8	7.4	53.3	34.9	0.0	55.6	53.0	0.0	0.0	53.9	71.9
LnGrp LOS	C	B	A	D	C	A	E	D		A	D	E
Approach Vol, veh/h	1782			1405			187			135		
Approach Delay, s/veh	14.1			38.9			55.2			68.7		
Approach LOS	B			D			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	76.9		11.9	52.6	41.1		12.4				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	3.6	40.5		7.0	18.7	* 36		37.0				
Max Q Clear Time (g_c+I), s	12.2	21.8		7.1	9.0	19.5		7.2				
Green Ext Time (p_c), s	0.1	14.8		0.0	0.1	11.4		0.4				

Intersection Summary

HCM 6th Ctrl Delay 28.3

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	0	41	5	0	20	22	377	14	14	398	65
Future Volume (veh/h)	83	0	41	5	0	20	22	377	14	14	398	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	31	44	5	12	13	23	401	15	15	423	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	59	83	16	38	44	201	1096	41	203	960	155
Arrive On Green	0.09	0.09	0.09	0.03	0.03	0.03	0.11	0.31	0.31	0.11	0.31	0.31
Sat Flow, veh/h	1781	685	973	542	1301	1539	1781	3490	130	1781	3052	494
Grp Volume(v), veh/h	66	0	75	17	0	13	23	204	212	15	245	247
Grp Sat Flow(s),veh/h/ln	1781	0	1658	1843	0	1539	1781	1777	1844	1781	1777	1769
Q Serve(g_s), s	1.2	0.0	1.5	0.3	0.0	0.3	0.4	3.1	3.1	0.3	3.8	3.9
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.3	0.0	0.3	0.4	3.1	3.1	0.3	3.8	3.9
Prop In Lane	1.00		0.59	0.29		1.00	1.00		0.07	1.00		0.28
Lane Grp Cap(c), veh/h	152	0	142	53	0	44	201	558	579	203	559	557
V/C Ratio(X)	0.43	0.00	0.53	0.32	0.00	0.29	0.11	0.37	0.37	0.07	0.44	0.44
Avail Cap(c_a), veh/h	255	0	237	1530	0	1277	204	1577	1636	204	1577	1570
HCM Platoon Ratio	1.00	1.00	1.00	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	15.2	0.0	15.3	16.6	0.0	16.6	13.9	9.3	9.3	13.8	9.5	9.5
Incr Delay (d2), s/veh	1.4	0.0	2.3	1.3	0.0	1.3	0.1	0.3	0.3	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.6	0.1	0.0	0.1	0.1	0.9	0.9	0.1	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	17.6	17.9	0.0	17.9	14.0	9.6	9.6	13.9	9.9	10.0
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	141		30			439			507			
Approach Delay, s/veh	17.1		17.9			9.8			10.1			
Approach LOS	B		B			A			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	15.0	7.0		8.0	15.0	5.0					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	31.0	31.0	5.0		4.0	31.0	29.0					
Max Q Clear Time (g_c+I2, s)	5.1	5.1	3.5		2.4	5.9	2.3					
Green Ext Time (p_c), s	0.0	1.9	0.1		0.0	2.4	0.0					

Intersection Summary

HCM 6th Ctrl Delay 11.1

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	255	17	9	151	171	275
Future Volume (veh/h)	255	17	9	151	171	275
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	294	0	10	0	188	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	867	455	664		338	
Arrive On Green	0.24	0.00	0.35	0.00	0.10	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	294	0	10	0	188	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	2.7	0.0	0.1	0.0	2.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.1	0.0	2.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	867	455	664		338	
V/C Ratio(X)	0.34	0.00	0.02		0.56	
Avail Cap(c_a), veh/h	993	521	664		1138	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.3	0.0	8.3	0.0	17.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.5	0.0	8.3	0.0	18.4	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		294	10	A	188	A
Approach Delay, s/veh		12.5	8.3		18.4	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.6		7.9		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+l1), s		4.7		4.0		2.1
Green Ext Time (p_c), s		0.5		0.4		0.0

Intersection Summary

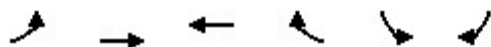
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

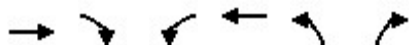
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	9	190	156	10	1	2
Future Vol, veh/h	9	190	156	10	1	2
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	221	181	12	1	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	193	0	-	0	318	97
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	131	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1378	-	-	-	650	940
Stage 1	-	-	-	-	826	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1378	-	-	-	645	940
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	881	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		9.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1378	-	-	-	816	
HCM Lane V/C Ratio	0.008	-	-	-	0.004	
HCM Control Delay (s)	7.6	0	-	-	9.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2013	2412	0	0	0
Future Volume (veh/h)	0	2013	2412	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2188	2622	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7418
Grp Volume(v), veh/h	0	2188	2622	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	13.9	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	13.9	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	773	2950
V/C Ratio(X)	0.00	0.85	1.02	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	773	2950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.3	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	3.8	22.6	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.9	8.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	16.0	36.1	0.0	8.1	8.1
LnGrp LOS	A	B	F	A	A	A
Approach Vol, veh/h		2188	2622	1077	1255	504
Approach Delay, s/veh		16.0	36.1		8.1	
Approach LOS		B	D		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				15.9	2.0	20.0
Green Ext Time (p_c), s				1.9	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3225	14	28	873	13	37
Future Volume (veh/h)	3225	14	28	873	13	37
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	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3468	15	30	939	14	40
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	5132	1294	73	5500	68	54
Arrive On Green	0.82	0.82	0.01	0.29	0.04	0.04
Sat Flow, veh/h	6537	1583	3456	6537	1781	1427
Grp Volume(v), veh/h	3468	15	30	939	14	40
Grp Sat Flow(s), veh/h/ln	1570	1583	1728	1570	1781	1427
Q Serve(g_s), s	26.6	0.2	1.0	13.2	0.9	3.3
Cycle Q Clear(g_c), s	26.6	0.2	1.0	13.2	0.9	3.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	5132	1294	73	5500	68	54
V/C Ratio(X)	0.68	0.01	0.41	0.17	0.21	0.74
Avail Cap(c_a), veh/h	5132	1294	117	5500	483	387
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.40	0.40	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	2.0	57.9	9.9	55.0	56.2
Incr Delay (d2), s/veh	0.3	0.0	1.4	0.1	1.5	17.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.5	4.9	0.4	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.7	2.0	59.2	10.0	56.5	73.8
LnGrp LOS	A	A	E	A	E	E
Approach Vol, veh/h	3483			969	54	
Approach Delay, s/veh	4.7			11.5	69.3	
Approach LOS	A			B	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.9	101.7		108.6	9.4	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	67.4			75.8	32.0	
Max Q Clear Time (g_c+I), s	28.6			15.2	5.3	
Green Ext Time (p_c), s	0.0	38.7		19.0	0.1	
Intersection Summary						
HCM 6th Ctrl Delay			6.9			
HCM 6th LOS			A			

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2024 with Project (Alt 4)

Timing Plan: PM PEAK



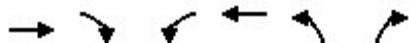
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱				↰ ↱		↰ ↱		
Traffic Volume (veh/h)	9	3155	0	11	564	60	0	0	0	5	0	5
Future Volume (veh/h)	9	3155	0	11	564	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	3356	0	12	600	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4067	0	60	4891	511	0	49	0	107	0	41
Arrive On Green	0.02	1.00	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	5820	608	0	1870	0	1741	0	1557
Grp Volume(v), veh/h	10	3356	0	12	483	181	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1717	0	1870	0	1741	0	1557
Q Serve(g_s), s	0.7	0.0	0.0	0.8	2.2	2.2	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.8	2.2	2.2	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.35	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4067	0	60	3959	1443	0	49	0	107	0	41
V/C Ratio(X)	0.59	0.83	0.00	0.20	0.12	0.13	0.00	0.00	0.00	0.05	0.00	0.12
Avail Cap(c_a), veh/h	60	4067	0	60	3959	1443	0	507	0	533	0	422
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.66	0.66	0.00	0.99	0.99	0.99	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	0.0	55.4	1.7	1.7	0.0	0.0	0.0	56.1	0.0	56.1
Incr Delay (d2), s/veh	7.9	1.4	0.0	0.6	0.1	0.2	0.0	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 BackOfQ(50%),veh/ln	0.3	0.5	0.0	0.3	0.3	0.4	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	1.4	0.0	56.0	1.7	1.9	0.0	0.0	0.0	56.2	0.0	56.6
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3366			676			0			10		
Approach Delay, s/veh	1.5			2.7			0.0			56.4		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4			8.0	5.5	104.5		8.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	4.0	67.4		32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	12.8	2.0		2.4	2.7	4.2		0.0				
Green Ext Time (p_c), s	0.0	65.0		0.0	0.0	10.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3133	2	14	705	0	18
Future Volume (veh/h)	3133	2	14	705	0	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3264	2	15	734	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3514	2	25	3753	0	162
Arrive On Green	0.68	0.68	0.01	0.75	0.00	0.13
Sat Flow, veh/h	5310	3	1781	5149	0	1293
Grp Volume(v), veh/h	2108	1158	15	734	0	20
Grp Sat Flow(s),veh/h/ln	1662	1825	1781	1662	0	1362
Q Serve(g_s), s	43.4	43.4	0.7	3.4	0.0	1.0
Cycle Q Clear(g_c), s	43.4	43.4	0.7	3.4	0.0	1.0
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2270	1247	25	3753	0	171
V/C Ratio(X)	0.93	0.93	0.59	0.20	0.00	0.12
Avail Cap(c_a), veh/h	2270	1247	90	3936	0	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.8	10.8	38.7	2.8	0.0	30.6
Incr Delay (d2), s/veh	7.9	12.9	8.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	15.2	0.3	0.6	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.8	23.7	46.6	2.9	0.0	30.9
LnGrp LOS	B	C	D	A	A	C
Approach Vol, veh/h	3266			749	20	
Approach Delay, s/veh	20.5			3.8	30.9	
Approach LOS	C			A	C	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	59.1			64.6	14.3	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	53.9			62.3	18.1	
Max Q Clear Time (g_c+I2), s	45.4			5.4	3.0	
Green Ext Time (p_c), s	0.0	8.5		14.9	0.0	

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	214.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	436	0	0	2229	407
Future Vol, veh/h	0	436	0	0	2229	407
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	464	0	0	2371	433

Major/Minor	Minor2		Major2	
Conflicting Flow All	2588	1405	-	0
Stage 1	2588	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	45	~ 111	-	-
Stage 1	23	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	45	~ 111	-	-
Mov Cap-2 Maneuver	45	-	-	-
Stage 1	23	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$	1509.3	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	111	-	-
HCM Lane V/C Ratio	-	4.179	-	-
HCM Control Delay (s)	\$	1509.3	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	47.7	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2024 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	104	696	28	19	683	330	34	58	40	221	28	150
Future Volume (veh/h)	104	696	28	19	683	330	34	58	40	221	28	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	782	31	21	767	371	38	65	45	248	31	169
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1253	385	593	2595	802	195	333	248	369	502	441
Arrive On Green	0.03	0.08	0.08	0.33	0.51	0.51	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1781	5106	1570	1781	5106	1578	528	1180	878	1267	1777	1560
Grp Volume(v), veh/h	117	782	31	21	767	371	70	0	78	248	31	169
Grp Sat Flow(s),veh/h/ln	1781	1702	1570	1781	1702	1578	1072	0	1514	1267	1777	1560
Q Serve(g_s), s	7.8	17.8	2.2	1.0	10.4	18.1	2.7	0.0	4.7	22.1	1.5	10.5
Cycle Q Clear(g_c), s	7.8	17.8	2.2	1.0	10.4	18.1	13.1	0.0	4.7	26.7	1.5	10.5
Prop In Lane	1.00		1.00	1.00		1.00	0.54		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	144	1253	385	593	2595	802	349	0	428	369	502	441
V/C Ratio(X)	0.81	0.62	0.08	0.04	0.30	0.46	0.20	0.00	0.18	0.67	0.06	0.38
Avail Cap(c_a), veh/h	276	2183	671	593	2595	802	493	0	582	498	683	599
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.5	49.8	42.6	27.0	17.1	19.0	35.8	0.0	32.6	42.7	31.4	34.6
Incr Delay (d2), s/veh	4.0	2.3	0.4	0.0	0.3	1.8	0.1	0.0	0.1	6.1	0.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	8.4	0.9	0.4	3.9	6.6	1.7	0.0	1.7	7.5	0.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.5	52.1	43.0	27.0	17.4	20.8	35.9	0.0	32.6	48.7	31.6	36.2
LnGrp LOS	E	D	D	C	B	C	D	A	C	D	C	D
Approach Vol, veh/h		930			1159			148			448	
Approach Delay, s/veh		53.0			18.6			34.2			42.8	
Approach LOS		D			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	46.1	35.1		38.8	14.1	67.1		38.8				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	7.6	* 51		46.1	18.6	39.9		46.1				
Max Q Clear Time (g_c+I1), s	3.0	19.8		28.7	9.8	20.1		15.1				
Green Ext Time (p_c), s	0.0	9.7		4.4	0.1	12.6		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			35.4									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	50	512	1	0	475	396	1	0	0	305	0	33
Future Volume (veh/h)	50	512	1	0	475	396	1	0	0	305	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	563	1	0	522	0	1	0	0	369	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	895	2	849	2178		52	0	46	507	266	0
Arrive On Green	0.04	0.17	0.17	0.00	0.20	0.00	0.03	0.00	0.00	0.14	0.00	0.00
Sat Flow, veh/h	1781	5263	9	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	55	364	200	0	522	0	1	0	0	369	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	3.7	11.9	11.9	0.0	14.8	0.0	0.1	0.0	0.0	11.9	0.0	0.0
Cycle Q Clear(g_c), s	3.7	11.9	11.9	0.0	14.8	0.0	0.1	0.0	0.0	11.9	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	71	579	318	849	2178		52	0	46	507	266	0
V/C Ratio(X)	0.78	0.63	0.63	0.00	0.24		0.02	0.00	0.00	0.73	0.00	0.00
Avail Cap(c_a), veh/h	113	814	447	849	2178		445	0	396	1098	577	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.96	0.00	1.00	0.00	0.00	0.87	0.00	0.00
Uniform Delay (d), s/veh	57.1	46.3	46.3	0.0	24.4	0.0	56.6	0.0	0.0	49.2	0.0	0.0
Incr Delay (d2), s/veh	6.7	5.1	9.1	0.0	0.2	0.0	0.1	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 BackOfQ(50%),veh/ln	1.7	5.3	6.2	0.0	7.1	0.0	0.0	0.0	0.0	5.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	51.4	55.4	0.0	24.7	0.0	56.7	0.0	0.0	49.9	0.0	0.0
LnGrp LOS	E	D	E	A	C		E	A	A	D	A	A
Approach Vol, veh/h	619			522			1			369		
Approach Delay, s/veh	53.8			24.7			56.7			49.9		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	31.1	25.5		23.0	9.2	79.5		8.4				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 29		37.0	7.6	24.3		30.0				
Max Q Clear Time (g_c+I10), s	13.9			13.9	5.7	16.8		2.1				
Green Ext Time (p_c), s	0.0	6.4		0.7	0.0	3.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	249	127	73	366	179	198	869	74	117	804	183
Future Volume (veh/h)	282	249	127	73	366	179	198	869	74	117	804	183
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	265	135	78	389	190	211	924	79	124	855	195
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	321	632	312	97	523	303	257	1630	139	168	1658	735
Arrive On Green	0.18	0.28	0.28	0.05	0.15	0.15	0.07	0.49	0.49	0.05	0.47	0.47
Sat Flow, veh/h	1781	2292	1130	1781	3554	1537	3456	3311	283	3456	3554	1576
Grp Volume(v), veh/h	300	203	197	78	389	190	211	496	507	124	855	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1645	1781	1777	1537	1728	1777	1818	1728	1777	1576
Q Serve(g_s), s	24.9	14.0	14.7	6.5	15.7	11.2	9.0	29.5	29.5	5.3	25.3	6.0
Cycle Q Clear(g_c), s	24.9	14.0	14.7	6.5	15.7	11.2	9.0	29.5	29.5	5.3	25.3	6.0
Prop In Lane	1.00		0.69	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	321	490	454	97	523	303	257	875	895	168	1658	735
V/C Ratio(X)	0.94	0.42	0.43	0.80	0.74	0.63	0.82	0.57	0.57	0.74	0.52	0.27
Avail Cap(c_a), veh/h	387	595	550	156	734	395	544	875	895	251	1658	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	44.4	44.7	70.1	61.3	27.8	68.4	26.8	26.8	70.4	28.1	6.9
Incr Delay (d2), s/veh	25.5	0.2	0.2	5.6	1.3	0.8	2.5	2.7	2.6	2.4	1.1	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 BackOfQ(50%),veh/ln	3.6	6.3	6.1	3.1	7.2	4.2	4.1	13.2	13.5	2.4	11.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	44.6	44.9	75.8	62.6	28.5	70.9	29.5	29.4	72.8	29.2	7.8
LnGrp LOS	F	D	D	E	E	C	E	C	C	E	C	A
Approach Vol, veh/h	700				657		1214				1174	
Approach Delay, s/veh	62.5				54.3		36.6				30.3	
Approach LOS	E				D		D				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	79.2	12.6	46.6	15.5	75.3	32.2	27.0				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	10.9	* 57	13.1	50.2	23.6	43.8	32.6	* 31				
Max Q Clear Time (g_c+17), s	17.3	31.5	8.5	16.7	11.0	27.3	26.9	17.7				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.9	0.1	2.4	0.1	1.0				

Intersection Summary

HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	123	51	325	432	60	184	272	61	60	259	80
Future Volume (veh/h)	85	123	51	325	432	60	184	272	61	60	259	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	91	132	55	349	465	65	198	292	66	65	278	86
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	717	317	398	576	81	241	909	399	83	651	188
Arrive On Green	0.07	0.20	0.20	0.22	0.36	0.36	0.14	0.26	0.26	0.05	0.17	0.17
Sat Flow, veh/h	1781	3554	1573	1781	1605	224	1781	3554	1559	1781	3900	1129
Grp Volume(v), veh/h	91	132	55	349	0	530	198	292	66	65	240	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1573	1781	0	1829	1781	1777	1559	1781	1702	1625
Q Serve(g_s), s	3.5	2.1	2.0	13.2	0.0	18.2	7.5	4.6	2.3	2.5	4.4	4.8
Cycle Q Clear(g_c), s	3.5	2.1	2.0	13.2	0.0	18.2	7.5	4.6	2.3	2.5	4.4	4.8
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	117	717	317	398	0	657	241	909	399	83	568	271
V/C Ratio(X)	0.78	0.18	0.17	0.88	0.00	0.81	0.82	0.32	0.17	0.78	0.42	0.46
Avail Cap(c_a), veh/h	245	1683	745	603	0	1234	353	1760	772	253	1495	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	32.0	23.1	23.0	26.1	0.0	20.1	29.3	21.0	20.2	32.9	26.0	26.2
Incr Delay (d2), s/veh	4.1	0.0	0.1	6.5	0.0	2.4	6.1	0.4	0.4	5.9	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.9	0.7	6.1	0.0	7.7	3.4	1.8	0.8	1.2	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	23.1	23.1	32.6	0.0	22.5	35.4	21.4	20.5	38.8	26.9	28.3
LnGrp LOS	D	C	C	C	A	C	D	C	C	D	C	C
Approach Vol, veh/h		278			879			556			429	
Approach Delay, s/veh		27.4			26.6			26.3			29.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	23.1	20.0	19.0	13.8	16.9	9.0	29.9				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	9.9	34.5	23.6	33.0	13.8	30.6	9.6	47.0				
Max Q Clear Time (g_c+I1), s	4.5	6.6	15.2	4.1	9.5	6.8	5.5	20.2				
Green Ext Time (p_c), s	0.0	3.7	0.4	0.7	0.1	3.7	0.0	4.0				
Intersection Summary												
HCM 6th Ctrl Delay			27.1									
HCM 6th LOS			C									

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	41	37	235	7	7	41	469	355	101	567	18
Future Volume (veh/h)	24	41	37	235	7	7	41	469	355	101	567	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	45	41	258	8	8	45	515	390	111	623	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	504	251	229	440	239	239	63	1359	595	143	2168	69
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.04	0.38	0.38	0.08	0.43	0.43
Sat Flow, veh/h	1393	900	820	1308	856	856	1781	3554	1557	1781	5077	162
Grp Volume(v), veh/h	26	0	86	258	0	16	45	515	390	111	417	226
Grp Sat Flow(s),veh/h/ln	1393	0	1720	1308	0	1713	1781	1777	1557	1781	1702	1835
Q Serve(g_s), s	0.8	0.0	2.2	10.8	0.0	0.4	1.4	6.0	11.9	3.5	4.6	4.6
Cycle Q Clear(g_c), s	1.2	0.0	2.2	12.9	0.0	0.4	1.4	6.0	11.9	3.5	4.6	4.6
Prop In Lane	1.00		0.48	1.00		0.50	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	504	0	480	440	0	478	63	1359	595	143	1454	784
V/C Ratio(X)	0.05	0.00	0.18	0.59	0.00	0.03	0.71	0.38	0.66	0.78	0.29	0.29
Avail Cap(c_a), veh/h	883	0	948	778	0	920	201	2106	922	327	2218	1196
HCM Platoon Ratio	1.00	1.00	1.00	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	15.6	0.0	15.8	20.7	0.0	15.1	27.5	12.9	14.7	26.0	10.8	10.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.5	0.0	0.0	5.3	0.3	2.2	3.4	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 BackOfQ(50%),veh/ln	0.2	0.0	0.8	3.1	0.0	0.1	0.7	2.1	3.9	1.5	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	0.0	15.8	21.2	0.0	15.1	32.9	13.2	16.9	29.4	10.9	11.0
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		112			274			950			754	
Approach Delay, s/veh		15.8			20.8			15.6			13.7	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	27.8		20.9	6.5	30.3		20.9				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	10.6	* 34		* 32	6.5	37.6		* 31				
Max Q Clear Time (g_c+I1), s	5.5	13.9		4.2	3.4	6.6		14.9				
Green Ext Time (p_c), s	0.1	8.1		0.3	0.0	4.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			15.6									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 	 	 	 	 
Traffic Volume (veh/h)	540	700	63	76	856	37	127	237	68	42	134	603
Future Volume (veh/h)	540	700	63	76	856	37	127	237	68	42	134	603
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		0.92	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	581	753	68	82	920	40	137	255	73	45	144	648
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	892	1490	135	249	1145	50	160	297	231	195	646	1167
Arrive On Green	0.26	0.45	0.45	0.14	0.33	0.33	0.09	0.16	0.16	0.11	0.18	0.18
Sat Flow, veh/h	3456	3291	297	1781	3469	151	1781	1870	1458	1781	3554	2458
Grp Volume(v), veh/h	581	406	415	82	471	489	137	255	73	45	144	648
Grp Sat Flow(s),veh/h/ln	1728	1777	1812	1781	1777	1843	1781	1870	1458	1781	1777	1229
Q Serve(g_s), s	21.0	22.7	22.7	5.8	33.9	33.9	10.6	18.6	6.2	3.2	4.8	6.1
Cycle Q Clear(g_c), s	21.0	22.7	22.7	5.8	33.9	33.9	10.6	18.6	6.2	3.2	4.8	6.1
Prop In Lane	1.00		0.16	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	892	805	820	249	586	608	160	297	231	195	646	1167
V/C Ratio(X)	0.65	0.51	0.51	0.33	0.80	0.80	0.85	0.86	0.32	0.23	0.22	0.56
Avail Cap(c_a), veh/h	892	805	820	249	586	608	198	474	370	195	736	1230
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	0.98	0.98	0.98	0.93	0.93	0.93
Uniform Delay (d), s/veh	46.3	27.2	27.2	54.3	42.8	42.8	62.8	57.4	52.2	56.9	48.8	14.0
Incr Delay (d2), s/veh	1.7	2.3	2.2	3.0	9.6	9.3	21.1	9.5	0.9	0.2	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 BackOfQ(50%),veh/ln	9.1	10.0	10.2	2.8	16.1	16.7	5.7	9.5	2.3	1.5	2.2	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	29.4	29.4	57.3	52.4	52.1	83.8	66.9	53.0	57.1	49.1	14.6
LnGrp LOS	D	C	C	E	D	D	F	E	D	E	D	B
Approach Vol, veh/h		1402			1042			465			837	
Approach Delay, s/veh		37.1			52.6			69.7			22.8	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.3	27.1	24.0	68.6	17.0	30.4	40.6	52.0				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	9.2	* 36	13.0	63.4	15.6	29.0	29.6	46.2				
Max Q Clear Time (g_c+I1), s	5.2	20.6	7.8	24.7	12.6	8.1	23.0	35.9				
Green Ext Time (p_c), s	0.0	1.6	0.0	8.1	0.0	6.1	1.3	3.8				

Intersection Summary

HCM 6th Ctrl Delay	42.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	708	72	28	163	0	0	0	0	179	212	828
Future Volume (veh/h)	0	708	72	28	163	0	0	0	0	179	212	828
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	796	81	31	183	0				201	238	930
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1419	144	65	1822	0				588	761	1021
Arrive On Green	0.00	0.44	0.44	0.04	0.51	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	3344	331	1781	3647	0				1556	2013	2700
Grp Volume(v), veh/h	0	435	442	31	183	0				232	207	930
Grp Sat Flow(s),veh/h/ln	0	1777	1805	1781	1777	0				1793	1777	1350
Q Serve(g_s), s	0.0	20.1	20.1	1.9	2.9	0.0				10.1	9.0	35.9
Cycle Q Clear(g_c), s	0.0	20.1	20.1	1.9	2.9	0.0				10.1	9.0	35.9
Prop In Lane	0.00		0.18	1.00		0.00				0.87		1.00
Lane Grp Cap(c), veh/h	0	775	788	65	1822	0				678	672	1021
V/C Ratio(X)	0.00	0.56	0.56	0.48	0.10	0.00				0.34	0.31	0.91
Avail Cap(c_a), veh/h	0	775	788	155	1822	0				678	672	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.91	0.91	0.72	0.72	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	23.1	23.1	52.0	13.8	0.0				24.4	24.1	32.4
Incr Delay (d2), s/veh	0.0	2.7	2.6	1.5	0.1	0.0				1.4	1.2	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.6	8.7	0.8	1.1	0.0				4.6	4.1	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.8	25.8	53.5	13.8	0.0				25.8	25.3	45.9
LnGrp LOS	A	C	C	D	B	A				C	C	D
Approach Vol, veh/h		877			214						1369	
Approach Delay, s/veh		25.8			19.6						39.4	
Approach LOS		C			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	4.6	54.6		47.0		63.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	4.6	* 44		41.6		56.4						
Max Q Clear Time (g_c+I), s	13.9	22.1		37.9		4.9						
Green Ext Time (p_c), s	0.0	1.7		1.1		0.4						

Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	424	0	0	1303	790
Future Volume (veh/h)	0	424	0	0	1303	790
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				0.99
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	471			1448	878
Peak Hour Factor	0.90	0.90			0.90	0.90
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2928	1355
Arrive On Green	0.00	0.00			0.86	0.86
Sat Flow, veh/h	0				3572	1576
Grp Volume(v), veh/h	0.0				1448	878
Grp Sat Flow(s),veh/h/ln					1702	1576
Q Serve(g_s), s					3.3	5.7
Cycle Q Clear(g_c), s					3.3	5.7
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2928	1355
V/C Ratio(X)					0.49	0.65
Avail Cap(c_a), veh/h					3459	1601
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.7
Incr Delay (d2), s/veh					0.1	0.7
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.7	1.4
LnGrp LOS					A	A
Approach Vol, veh/h					2326	
Approach Delay, s/veh					1.0	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					32.2	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					32.7	
Max Q Clear Time (g_c+I1), s					7.7	
Green Ext Time (p_c), s					20.0	
Intersection Summary						
HCM 6th Ctrl Delay			1.0			
HCM 6th LOS			A			

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												
Traffic Volume (veh/h)	96	190	76	300	414	81	177	266	119	53	263	73
Future Volume (veh/h)	96	190	76	300	414	81	177	266	119	53	263	73
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		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	204	82	323	445	87	190	286	128	57	283	78
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	805	356	365	542	106	230	1005	417	72	721	186
Arrive On Green	0.07	0.23	0.23	0.20	0.36	0.36	0.13	0.27	0.27	0.04	0.18	0.18
Sat Flow, veh/h	1781	3554	1570	1781	1518	297	1781	3741	1550	1781	3997	1032
Grp Volume(v), veh/h	103	204	82	323	0	532	190	286	128	57	238	123
Grp Sat Flow(s),veh/h/ln	1781	1777	1570	1781	0	1815	1781	1870	1550	1781	1702	1625
Q Serve(g_s), s	4.2	3.5	3.1	12.9	0.0	19.5	7.6	4.4	4.8	2.3	4.5	4.9
Cycle Q Clear(g_c), s	4.2	3.5	3.1	12.9	0.0	19.5	7.6	4.4	4.8	2.3	4.5	4.9
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	132	805	356	365	0	648	230	1005	417	72	614	293
V/C Ratio(X)	0.78	0.25	0.23	0.89	0.00	0.82	0.83	0.28	0.31	0.79	0.39	0.42
Avail Cap(c_a), veh/h	238	1600	707	404	0	986	258	1649	683	221	1431	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	33.3	23.2	23.1	28.3	0.0	21.4	31.1	21.2	21.4	34.8	26.5	26.6
Incr Delay (d2), s/veh	3.7	0.1	0.1	18.0	0.0	3.4	16.1	0.3	0.8	6.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.4	1.1	7.2	0.0	8.5	4.1	1.9	1.8	1.1	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	23.3	23.2	46.3	0.0	24.8	47.2	21.5	22.1	41.7	27.2	28.3
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h		389			855			604			418	
Approach Delay, s/veh		26.9			32.9			29.7			29.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	25.0	19.4	21.5	13.8	18.5	9.8	31.1				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	9.1	32.3	16.6	33.0	10.6	30.8	9.8	39.8				
Max Q Clear Time (g_c+I1), s	4.3	6.8	14.9	5.5	9.6	6.9	6.2	21.5				
Green Ext Time (p_c), s	0.0	4.0	0.1	1.0	0.0	3.7	0.0	3.6				
Intersection Summary												
HCM 6th Ctrl Delay			30.4									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	32	43	268	10	60	30	473	363	44	626	17
Future Volume (veh/h)	21	32	43	268	10	60	30	473	363	44	626	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	34	45	282	11	63	32	498	382	46	659	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	490	223	295	487	74	421	50	1382	604	65	2029	55
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.03	0.39	0.39	0.04	0.40	0.40
Sat Flow, veh/h	1319	727	963	1313	240	1374	1781	3554	1552	1781	5105	139
Grp Volume(v), veh/h	22	0	79	282	0	74	32	498	382	46	439	238
Grp Sat Flow(s),veh/h/ln	1319	0	1690	1313	0	1614	1781	1777	1552	1781	1702	1840
Q Serve(g_s), s	0.7	0.0	1.9	11.1	0.0	1.9	1.0	5.5	11.1	1.4	5.0	5.0
Cycle Q Clear(g_c), s	2.5	0.0	1.9	13.0	0.0	1.9	1.0	5.5	11.1	1.4	5.0	5.0
Prop In Lane	1.00		0.57	1.00		0.85	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	490	0	518	487	0	495	50	1382	604	65	1353	731
V/C Ratio(X)	0.04	0.00	0.15	0.58	0.00	0.15	0.64	0.36	0.63	0.71	0.32	0.33
Avail Cap(c_a), veh/h	868	0	1003	845	0	934	189	2365	1033	211	2265	1224
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	14.0	18.7	0.0	14.0	26.7	12.1	13.8	26.5	11.6	11.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.1	5.0	0.3	2.0	5.1	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 BackOfQ(50%),veh/ln	0.2	0.0	0.7	3.1	0.0	0.6	0.5	1.9	3.5	0.6	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	14.1	19.1	0.0	14.1	31.7	12.4	15.7	31.6	11.7	11.9
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		101			356			912			723	
Approach Delay, s/veh		14.3			18.1			14.5			13.0	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	27.3		21.8	6.0	27.8		21.8				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	6.6	* 37		* 33	5.9	37.0		* 32				
Max Q Clear Time (g_c+I1), s	3.4	13.1		4.5	3.0	7.0		15.0				
Green Ext Time (p_c), s	0.0	8.5		0.3	0.0	4.6		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.6								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	522	802	71	101	783	62	82	251	74	75	135	592
Future Volume (veh/h)	522	802	71	101	783	62	82	251	74	75	135	592
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.93	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	533	818	72	103	799	63	84	256	76	77	138	604
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1022	1739	153	200	1109	87	105	294	232	115	593	1242
Arrive On Green	0.30	0.53	0.53	0.11	0.33	0.33	0.06	0.16	0.16	0.06	0.17	0.17
Sat Flow, veh/h	3456	3303	291	1781	3332	263	1781	1870	1476	1781	3554	2496
Grp Volume(v), veh/h	533	440	450	103	426	436	84	256	76	77	138	604
Grp Sat Flow(s),veh/h/ln	1728	1777	1817	1781	1777	1817	1781	1870	1476	1781	1777	1248
Q Serve(g_s), s	18.0	21.8	21.8	7.6	29.5	29.5	6.5	18.7	5.0	5.9	4.7	4.0
Cycle Q Clear(g_c), s	18.0	21.8	21.8	7.6	29.5	29.5	6.5	18.7	5.0	5.9	4.7	4.0
Prop In Lane	1.00		0.16	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1022	936	957	200	591	605	105	294	232	115	593	1242
V/C Ratio(X)	0.52	0.47	0.47	0.52	0.72	0.72	0.80	0.87	0.33	0.67	0.23	0.49
Avail Cap(c_a), veh/h	1022	936	957	200	591	605	169	407	321	162	756	1357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	0.99	0.99	0.99	0.91	0.91	0.91
Uniform Delay (d), s/veh	41.0	20.9	20.9	58.6	41.0	41.0	65.1	57.6	32.6	64.0	50.6	13.3
Incr Delay (d2), s/veh	0.5	1.7	1.7	7.9	6.3	6.2	5.2	14.4	0.9	2.2	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 BackOfQ(50%),veh/ln	7.6	9.3	9.5	3.8	13.7	14.0	3.1	10.0	2.4	2.7	2.1	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	22.5	22.5	66.4	47.3	47.2	70.3	72.0	33.5	66.2	50.8	13.7
LnGrp LOS	D	C	C	E	D	D	E	E	C	E	D	B
Approach Vol, veh/h		1423			965			416			819	
Approach Delay, s/veh		29.6			49.3			64.6			24.9	
Approach LOS		C			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.1	26.9	20.1	78.9	12.6	28.4	46.6	52.4				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	5.2	4.4	5.0	5.2	* 5.8				
Max Green Setting (Gmax), s	12.7	* 31	15.7	62.2	13.3	29.8	30.7	* 47				
Max Q Clear Time (g_c+I1), s	7.9	20.7	9.6	23.8	8.5	6.7	20.0	31.5				
Green Ext Time (p_c), s	0.0	1.3	0.1	9.0	0.0	5.8	1.5	4.1				

Intersection Summary

HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	810	98	35	141	0	0	0	0	128	160	806
Future Volume (veh/h)	0	810	98	35	141	0	0	0	0	128	160	806
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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	880	107	38	153	0				139	174	876
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1498	182	70	1951	0				278	955	922
Arrive On Green	0.00	0.47	0.47	0.04	0.55	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	3282	388	1781	3647	0				813	2794	2696
Grp Volume(v), veh/h	0	490	497	38	153	0				313	0	876
Grp Sat Flow(s),veh/h/ln	0	1777	1799	1781	1777	0				1830	1777	1348
Q Serve(g_s), s	0.0	22.2	22.2	2.3	2.2	0.0				14.9	0.0	34.8
Cycle Q Clear(g_c), s	0.0	22.2	22.2	2.3	2.2	0.0				14.9	0.0	34.8
Prop In Lane	0.00		0.22	1.00		0.00				0.44		1.00
Lane Grp Cap(c), veh/h	0	835	845	70	1951	0				625	607	922
V/C Ratio(X)	0.00	0.59	0.59	0.55	0.08	0.00				0.50	0.00	0.95
Avail Cap(c_a), veh/h	0	835	845	123	1951	0				625	607	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.79	0.79	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.3	21.3	51.9	11.7	0.0				28.7	0.0	35.3
Incr Delay (d2), s/veh	0.0	2.5	2.5	2.0	0.1	0.0				2.8	0.0	19.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.3	9.4	1.0	0.8	0.0				7.1	0.0	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.8	23.8	53.8	11.7	0.0				31.6	0.0	55.2
LnGrp LOS	A	C	C	D	B	A				C	A	E
Approach Vol, veh/h		987			191						1189	
Approach Delay, s/veh		23.8			20.1						48.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.6	58.3		43.0		67.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.6	* 50		37.6		60.4						
Max Q Clear Time (g_c+I14, s)	14.3	24.2		36.8		4.2						
Green Ext Time (p_c), s	0.0	1.9		0.3		0.3						

Intersection Summary

HCM 6th Ctrl Delay	36.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	549	0	0	1099	782
Future Volume (veh/h)	0	549	0	0	1099	782
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	584			1169	832
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2873	1334
Arrive On Green	0.00	0.00			0.84	0.84
Sat Flow, veh/h	0				3572	1580
Grp Volume(v), veh/h	0.0				1169	832
Grp Sat Flow(s),veh/h/ln					1702	1580
Q Serve(g_s), s					2.4	5.0
Cycle Q Clear(g_c), s					2.4	5.0
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2873	1334
V/C Ratio(X)					0.41	0.62
Avail Cap(c_a), veh/h					3720	1727
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.7
Incr Delay (d2), s/veh					0.1	0.5
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	1.2
LnGrp LOS					A	A
Approach Vol, veh/h					2001	
Approach Delay, s/veh					0.9	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					28.8	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					31.5	
Max Q Clear Time (g_c+I1), s					7.0	
Green Ext Time (p_c), s					17.3	
Intersection Summary						
HCM 6th Ctrl Delay			0.9			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	107	208	85	264	322	84	160	414	71	157	1019	53
Future Volume (veh/h)	107	208	85	264	322	84	160	414	71	157	1019	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	221	90	281	343	89	170	440	76	167	1084	56
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	668	297	317	408	106	205	1124	474	203	1489	77
Arrive On Green	0.08	0.19	0.19	0.18	0.28	0.28	0.12	0.30	0.30	0.11	0.30	0.30
Sat Flow, veh/h	1781	3554	1580	1781	1431	371	1781	3741	1579	1781	4970	257
Grp Volume(v), veh/h	114	221	90	281	0	432	170	440	76	167	742	398
Grp Sat Flow(s),veh/h/ln	1781	1777	1580	1781	0	1803	1781	1870	1579	1781	1702	1822
Q Serve(g_s), s	5.4	4.7	4.2	13.3	0.0	19.5	8.1	8.1	3.1	7.9	16.9	16.9
Cycle Q Clear(g_c), s	5.4	4.7	4.2	13.3	0.0	19.5	8.1	8.1	3.1	7.9	16.9	16.9
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	144	668	297	317	0	513	205	1124	474	203	1020	546
V/C Ratio(X)	0.79	0.33	0.30	0.89	0.00	0.84	0.83	0.39	0.16	0.82	0.73	0.73
Avail Cap(c_a), veh/h	214	1355	603	344	0	819	259	1124	474	381	1129	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	39.1	30.4	30.3	34.7	0.0	29.1	37.4	24.0	22.2	37.5	27.1	27.1
Incr Delay (d2), s/veh	6.2	0.1	0.2	21.0	0.0	4.5	13.3	0.4	0.3	3.1	2.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.0	1.6	7.6	0.0	8.9	4.2	3.5	1.2	3.5	6.9	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	30.5	30.5	55.7	0.0	33.6	50.7	24.4	22.5	40.6	29.8	32.1
LnGrp LOS	D	C	C	E	A	C	D	C	C	D	C	C
Approach Vol, veh/h		425			713			686			1307	
Approach Delay, s/veh		34.5			42.3			30.7			31.9	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	31.3	19.8	21.2	14.4	31.2	11.4	29.5				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	18.5	22.8	16.7	33.0	12.6	28.7	10.4	39.3				
Max Q Clear Time (g_c+I1), s	9.9	10.1	15.3	6.7	10.1	18.9	7.4	21.5				
Green Ext Time (p_c), s	0.1	3.9	0.1	1.1	0.1	6.7	0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	45	48	226	3	10	19	550	426	212	1265	22
Future Volume (veh/h)	30	45	48	226	3	10	19	550	426	212	1265	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	52	56	263	3	12	22	640	495	247	1471	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	516	248	267	431	98	392	36	1353	599	339	2369	42
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.02	0.38	0.38	0.10	0.46	0.46
Sat Flow, veh/h	1388	820	883	1277	325	1299	1781	3554	1574	3456	5166	91
Grp Volume(v), veh/h	35	0	108	263	0	15	22	640	495	247	969	528
Grp Sat Flow(s),veh/h/ln	1388	0	1703	1277	0	1624	1781	1777	1574	1728	1702	1853
Q Serve(g_s), s	1.2	0.0	3.2	13.1	0.0	0.4	0.8	9.2	19.3	4.7	14.6	14.6
Cycle Q Clear(g_c), s	1.7	0.0	3.2	16.3	0.0	0.4	0.8	9.2	19.3	4.7	14.6	14.6
Prop In Lane	1.00		0.52	1.00		0.80	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	516	0	514	431	0	490	36	1353	599	339	1561	850
V/C Ratio(X)	0.07	0.00	0.21	0.61	0.00	0.03	0.62	0.47	0.83	0.73	0.62	0.62
Avail Cap(c_a), veh/h	747	0	797	629	0	741	105	1465	649	346	1561	850
HCM Platoon Ratio	1.00	1.00	1.00	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	17.3	0.0	17.7	23.8	0.0	16.7	33.0	15.9	19.0	29.8	13.9	13.9
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.5	0.0	0.0	6.3	0.5	9.1	6.4	0.8	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.2	3.8	0.0	0.2	0.4	3.4	7.7	2.2	5.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	17.7	24.3	0.0	16.7	39.3	16.3	28.1	36.2	14.7	15.3
LnGrp LOS	B	A	B	C	A	B	D	B	C	D	B	B
Approach Vol, veh/h		143			278			1157			1744	
Approach Delay, s/veh		17.6			23.9			21.8			17.9	
Approach LOS		B			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	31.6		25.3	5.8	36.9		25.3				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	6.8	* 28		* 32	4.0	30.1		* 31				
Max Q Clear Time (g_c+I1), s	6.7	21.3		5.2	2.8	16.6		18.3				
Green Ext Time (p_c), s	0.0	4.6		0.5	0.0	8.0		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				19.8								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	522	1278	89	188	528	100	94	295	144	203	753	650
Future Volume (veh/h)	522	1278	89	188	528	100	94	295	144	203	753	650
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	607	1486	103	219	614	116	109	343	167	236	876	756
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	675	2436	168	214	1932	364	115	329	276	230	868	1219
Arrive On Green	0.20	0.72	0.72	0.12	0.65	0.65	0.06	0.18	0.18	0.13	0.24	0.24
Sat Flow, veh/h	3456	3369	232	1781	2983	562	1781	1870	1572	1781	3554	2761
Grp Volume(v), veh/h	607	780	809	219	365	365	109	343	167	236	876	756
Grp Sat Flow(s),veh/h/ln	1728	1777	1825	1781	1777	1769	1781	1870	1572	1781	1777	1381
Q Serve(g_s), s	24.0	30.4	30.9	16.8	12.8	12.8	8.5	24.6	15.5	18.1	34.2	29.6
Cycle Q Clear(g_c), s	24.0	30.4	30.9	16.8	12.8	12.8	8.5	24.6	15.5	18.1	34.2	29.6
Prop In Lane	1.00		0.13	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	675	1284	1319	214	1151	1145	115	329	276	230	868	1219
V/C Ratio(X)	0.90	0.61	0.61	1.02	0.32	0.32	0.95	1.04	0.60	1.02	1.01	0.62
Avail Cap(c_a), veh/h	805	1284	1319	214	1151	1145	115	329	276	230	868	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	0.99	0.99	0.99	0.76	0.76	0.76
Uniform Delay (d), s/veh	55.0	9.6	9.7	61.6	10.9	11.0	65.3	57.7	67.6	61.0	52.9	30.3
Incr Delay (d2), s/veh	11.7	2.1	2.1	64.6	0.6	0.7	67.9	61.2	3.9	58.2	28.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.4	11.1	11.6	11.3	5.0	5.0	6.0	17.1	6.4	11.9	18.6	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	11.7	11.8	126.2	11.6	11.6	133.1	118.9	71.5	119.2	81.8	31.2
LnGrp LOS	E	B	B	F	B	B	F	F	E	F	F	C
Approach Vol, veh/h		2196			949			619			1868	
Approach Delay, s/veh		26.9			38.0			108.6			66.0	
Approach LOS		C			D			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.1	29.5	21.2	108.2	13.4	39.2	31.7	97.7				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	* 5.8	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	18.1	* 25	16.8	* 62	9.0	33.6	32.6	45.2				
Max Q Clear Time (g_c+I1), s	20.1	26.6	18.8	32.9	10.5	36.2	26.0	14.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	18.0	0.0	0.0	1.3	4.0				
Intersection Summary												
HCM 6th Ctrl Delay			50.7									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2024 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑						↑↑	↵↵
Traffic Volume (veh/h)	0	1392	153	37	175	0	0	0	0	293	655	669
Future Volume (veh/h)	0	1392	153	37	175	0	0	0	0	293	655	669
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1481	163	39	186	0				312	697	712
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	3304	360	70	3916	0				331	799	862
Arrive On Green	0.00	1.00	1.00	0.04	1.00	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3324	352	1781	3647	0				1054	2541	2741
Grp Volume(v), veh/h	0	808	836	39	186	0				538	471	712
Grp Sat Flow(s),veh/h/ln	0	1777	1806	1781	1777	0				1818	1777	1370
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	0.0				31.7	27.2	26.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	0.0	0.0				31.7	27.2	26.5
Prop In Lane	0.00		0.20	1.00		0.00				0.58		1.00
Lane Grp Cap(c), veh/h	0	1817	1847	70	3916	0				572	559	862
V/C Ratio(X)	0.00	0.44	0.45	0.56	0.05	0.00				0.94	0.84	0.83
Avail Cap(c_a), veh/h	0	1817	1847	70	3916	0				572	559	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.23	0.23	0.61	0.61	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	51.9	0.0	0.0				36.7	35.2	34.9
Incr Delay (d2), s/veh	0.0	0.2	0.2	3.8	0.0	0.0				25.6	14.3	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
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	1.1	0.0	0.0				18.0	13.9	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.2	55.7	0.0	0.0				62.3	49.5	43.8
LnGrp LOS	A	A	A	E	A	A				E	D	D
Approach Vol, veh/h		1644			225						1721	
Approach Delay, s/veh		0.2			9.7						51.2	
Approach LOS		A			A						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s8.7				40.0		129.5						
Change Period (Y+Rc), s 4.4		* 6.6		5.4		6.6						
Max Green Setting (Gmax), s 4.3		* 56		34.6		63.4						
Max Q Clear Time (g_c+I14,4		2.0		33.7		2.0						
Green Ext Time (p_c), s 0.0		4.1		0.5		0.4						

Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	664	0	0	2128	513
Future Volume (veh/h)	0	664	0	0	2128	513
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	706			2264	546
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3721	841
Arrive On Green	0.00	0.00			0.89	0.89
Sat Flow, veh/h	0				4333	941
Grp Volume(v), veh/h	0.0				1823	987
Grp Sat Flow(s),veh/h/ln					1702	1701
Q Serve(g_s), s					5.2	6.2
Cycle Q Clear(g_c), s					5.2	6.2
Prop In Lane						0.55
Lane Grp Cap(c), veh/h					3042	1520
V/C Ratio(X)					0.60	0.65
Avail Cap(c_a), veh/h					3404	1701
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.6
Incr Delay (d2), s/veh					0.2	0.7
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.8	1.3
LnGrp LOS					A	A
Approach Vol, veh/h					2810	
Approach Delay, s/veh					1.0	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					42.3	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					42.3	
Max Q Clear Time (g_c+I1), s					8.2	
Green Ext Time (p_c), s					29.6	
Intersection Summary						
HCM 6th Ctrl Delay			1.0			
HCM 6th LOS			A			

Notes

User approved volume balancing among the lanes for turning movement.

2026 Conditions

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	207	94	214	180	77	100	131	177	84	108	72
Future Volume (veh/h)	35	207	94	214	180	77	100	131	177	84	108	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	220	100	228	191	82	106	139	188	89	115	77
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	1309	659	314	809	636	136	754	470	115	713	308
Arrive On Green	0.03	0.37	0.37	0.09	0.43	0.43	0.08	0.21	0.21	0.06	0.20	0.20
Sat Flow, veh/h	1781	3554	1461	3456	1870	1471	1781	3554	1536	1781	3554	1534
Grp Volume(v), veh/h	37	220	100	228	191	82	106	139	188	89	115	77
Grp Sat Flow(s),veh/h/ln	1781	1777	1461	1728	1870	1471	1781	1777	1536	1781	1777	1534
Q Serve(g_s), s	1.8	3.7	3.6	5.7	5.7	3.0	5.2	2.8	8.6	4.4	2.4	3.7
Cycle Q Clear(g_c), s	1.8	3.7	3.6	5.7	5.7	3.0	5.2	2.8	8.6	4.4	2.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1309	659	314	809	636	136	754	470	115	713	308
V/C Ratio(X)	0.77	0.17	0.15	0.73	0.24	0.13	0.78	0.18	0.40	0.77	0.16	0.25
Avail Cap(c_a), veh/h	602	1602	779	1168	843	663	602	1602	836	602	1602	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	42.9	18.9	14.7	39.3	15.9	15.1	40.2	28.7	24.5	40.9	29.3	29.8
Incr Delay (d2), s/veh	9.2	0.1	0.1	1.2	0.1	0.0	3.6	0.1	0.6	4.1	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 BackOfQ(50%),veh/ln	0.9	1.5	1.2	2.4	2.4	1.0	2.4	1.2	3.1	2.0	1.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	18.9	14.8	40.5	16.0	15.2	43.9	28.8	25.1	44.9	29.3	30.0
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		357			501			433			281	
Approach Delay, s/veh		21.2			27.0			30.9			34.5	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	38.6	12.2	24.5	7.8	44.3	11.1	25.5				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	7.7	5.7	7.2	5.7	3.8	7.7	6.4	10.6				
Green Ext Time (p_c), s	0.4	2.3	0.1	0.6	0.0	1.0	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			28.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	↔
Traffic Volume (veh/h)	10	0	9	25	0	38	82	313	28	71	301	34
Future Volume (veh/h)	10	0	9	25	0	38	82	313	28	71	301	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	10	27	0	41	89	340	30	77	327	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	43	127	463	0	372	120	1534	133	109	1467	162
Arrive On Green	0.18	0.00	0.18	0.18	0.00	0.18	0.07	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	545	242	716	1394	0	1548	1781	4770	413	1781	4649	513
Grp Volume(v), veh/h	21	0	0	27	0	41	89	241	129	77	237	127
Grp Sat Flow(s), veh/h/ln	1503	0	0	1394	0	1548	1781	1702	1779	1781	1702	1758
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.7	1.6	1.7	1.8	1.4	1.7	1.8
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.5	0.0	0.7	1.6	1.7	1.8	1.4	1.7	1.8
Prop In Lane	0.52		0.48	1.00		1.00	1.00		0.23	1.00		0.29
Lane Grp Cap(c), veh/h	431	0	0	463	0	372	120	1095	572	109	1074	555
V/C Ratio(X)	0.05	0.00	0.00	0.06	0.00	0.11	0.74	0.22	0.23	0.71	0.22	0.23
Avail Cap(c_a), veh/h	1886	0	0	1861	0	1947	1598	6106	3191	1598	6106	3154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	11.5	0.0	10.0	15.3	8.3	8.3	15.4	8.4	8.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.1	0.3	3.1	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.1	0.0	0.2	0.7	0.5	0.5	0.6	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.5	0.0	0.0	11.5	0.0	10.0	18.7	8.4	8.6	18.5	8.5	8.7
LnGrp LOS	B	A	A	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		21			68			459			441	
Approach Delay, s/veh		11.5			10.6			10.5			10.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	16.2		10.8	6.7	16.0		10.8				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.4	3.8		2.3	3.6	3.8		2.7				
Green Ext Time (p_c), s	0.1	3.5		0.1	0.1	3.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay 10.4

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	11	29	41	51	13	360	638	114	41	442	195
Future Volume (veh/h)	19	11	29	41	51	13	360	638	114	41	442	195
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.74	1.00		0.74	1.00		0.94	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	12	31	44	55	14	387	686	123	44	475	210
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	58	471	296	57	469	295	416	1736	727	57	688	301
Arrive On Green	0.03	0.25	0.25	0.03	0.25	0.25	0.23	0.49	0.49	0.03	0.30	0.30
Sat Flow, veh/h	1781	1870	1177	1781	1870	1176	1781	3554	1488	1781	2330	1019
Grp Volume(v), veh/h	20	12	31	44	55	14	387	686	123	44	361	324
Grp Sat Flow(s),veh/h/ln	1781	1870	1177	1781	1870	1176	1781	1777	1488	1781	1777	1572
Q Serve(g_s), s	1.3	0.6	2.4	2.9	2.7	1.1	25.4	14.6	5.5	2.9	21.5	21.9
Cycle Q Clear(g_c), s	1.3	0.6	2.4	2.9	2.7	1.1	25.4	14.6	5.5	2.9	21.5	21.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	58	471	296	57	469	295	416	1736	727	57	524	464
V/C Ratio(X)	0.35	0.03	0.10	0.77	0.12	0.05	0.93	0.40	0.17	0.77	0.69	0.70
Avail Cap(c_a), veh/h	447	471	296	447	470	295	447	1785	747	447	893	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.5	33.7	34.4	57.4	34.5	33.9	44.8	19.4	17.0	57.4	37.2	37.4
Incr Delay (d2), s/veh	1.3	0.0	0.1	8.0	0.0	0.0	25.6	0.2	0.1	8.0	4.4	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.3	0.7	1.4	1.2	0.3	14.1	6.0	1.9	1.4	9.9	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	33.7	34.4	65.4	34.6	33.9	70.4	19.5	17.2	65.4	41.6	42.5
LnGrp LOS	E	C	C	E	C	C	E	B	B	E	D	D
Approach Vol, veh/h	63			113			1196			729		
Approach Delay, s/veh	41.7			46.5			35.8			43.5		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	67.1	8.2	35.0	32.3	44.0	8.3	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I4.5), s	14.9	16.6	4.9	4.4	27.4	23.9	3.3	4.7				
Green Ext Time (p_c), s	0.0	7.8	0.0	0.1	0.5	11.4	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 39.2

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	167	18	155	142	0	0	0	0	195	24	39
Future Volume (veh/h)	0	167	18	155	142	0	0	0	0	195	24	39
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	184	20	170	156	0				233	0	43
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	228	456	200	357	683	0				963	0	624
Arrive On Green	0.00	0.13	0.13	0.20	0.20	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1560	1781	3572	0				3563	0	1557
Grp Volume(v), veh/h	0	184	20	170	156	0				233	0	43
Grp Sat Flow(s), veh/h/ln	1781	1777	1560	1781	1702	0				1781	0	1557
Q Serve(g_s), s	0.0	1.7	0.4	3.1	1.4	0.0				1.8	0.0	0.6
Cycle Q Clear(g_c), s	0.0	1.7	0.4	3.1	1.4	0.0				1.8	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	228	456	200	357	683	0				963	0	624
V/C Ratio(X)	0.00	0.40	0.10	0.48	0.23	0.00				0.24	0.00	0.07
Avail Cap(c_a), veh/h	2956	5896	2589	2956	5648	0				3448	0	1710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.5	13.9	12.8	12.1	0.0				10.3	0.0	6.7
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.1	0.2	0.0				0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.5	0.1	1.0	0.4	0.0				0.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.7	14.0	13.9	12.3	0.0				10.4	0.0	6.7
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	204			326			276					
Approach Delay, s/veh	14.6			13.1			9.8					
Approach LOS	B			B			A					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	8.6			16.0			11.6					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	3.7			3.8			5.1					
Green Ext Time (p_c), s	0.7			0.5			2.2					

Intersection Summary

HCM 6th Ctrl Delay 12.4

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	233	0	0	279	331	35	6	138	22	0	287
Future Volume (veh/h)	84	233	0	0	279	331	35	6	138	22	0	287
Initial Q (Qb), 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		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	259	0	0	310	368	39	7	153	24	0	319
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	123	1545	0	0	554	489	249	10	209	28	0	367
Arrive On Green	0.07	0.43	0.00	0.00	0.31	0.31	0.14	0.14	0.14	0.25	0.00	0.25
Sat Flow, veh/h	1781	3647	0	0	1870	1570	1781	68	1491	111	0	1477
Grp Volume(v), veh/h	93	259	0	0	310	368	39	0	160	343	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1570	1781	0	1559	1588	0	0
Q Serve(g_s), s	4.3	3.7	0.0	0.0	12.2	17.7	1.6	0.0	8.2	17.3	0.0	0.0
Cycle Q Clear(g_c), s	4.3	3.7	0.0	0.0	12.2	17.7	1.6	0.0	8.2	17.3	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.96	0.07		0.93
Lane Grp Cap(c), veh/h	123	1545	0	0	554	489	249	0	218	395	0	0
V/C Ratio(X)	0.75	0.17	0.00	0.00	0.56	0.75	0.16	0.00	0.73	0.87	0.00	0.00
Avail Cap(c_a), veh/h	638	2544	0	0	1272	1124	850	0	744	758	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.3	14.4	0.0	0.0	24.1	25.9	31.7	0.0	34.5	30.2	0.0	0.0
Incr Delay (d2), s/veh	10.6	0.0	0.0	0.0	1.1	2.8	0.1	0.0	1.8	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	1.3	0.0	0.0	4.8	6.4	0.7	0.0	3.2	6.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	14.5	0.0	0.0	25.1	28.8	31.8	0.0	36.3	32.5	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	D	C	A	A
Approach Vol, veh/h	352				678		199				343	
Approach Delay, s/veh	23.6				27.1		35.4				32.5	
Approach LOS	C				C		D				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	40.8		24.8		10.3		30.5		18.1			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	5.7		19.3		6.3		19.7		10.2			
Green Ext Time (p_c), s	1.0		1.5		0.3		5.5		0.7			

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	354	115	304	425	0	0	0	0	387	244	195
Future Volume (veh/h)	0	354	115	304	425	0	0	0	0	387	244	195
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	361	117	310	434	0				395	249	199
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1898	843	390	2484	0				656	345	285
Arrive On Green	0.00	0.53	0.53	0.23	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1546
Grp Volume(v), veh/h	0	361	117	310	434	0				395	249	199
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1546
Q Serve(g_s), s	0.0	4.4	3.1	7.1	0.0	0.0				8.5	10.5	10.1
Cycle Q Clear(g_c), s	0.0	4.4	3.1	7.1	0.0	0.0				8.5	10.5	10.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1898	843	390	2484	0				656	345	285
V/C Ratio(X)	0.00	0.19	0.14	0.80	0.17	0.00				0.60	0.72	0.70
Avail Cap(c_a), veh/h	0	1898	843	703	2484	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.2	9.9	31.6	0.0	0.0				31.4	32.2	32.1
Incr Delay (d2), s/veh	0.0	0.2	0.3	1.4	0.1	0.0				0.3	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.5	1.0	2.6	0.1	0.0				3.6	4.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.4	10.2	33.0	0.1	0.0				31.8	33.3	33.2
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		478			744						843	
Approach Delay, s/veh		10.3			13.8						32.6	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.9	49.8		20.4		63.6						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+1.9), s	19.1	6.4		12.5		2.0						
Green Ext Time (p_c), s	0.4	2.5		2.0		3.2						

Intersection Summary

HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	212	540	0	0	586	563	136	250	22	0	0	0
Future Volume (veh/h)	212	540	0	0	586	563	136	250	22	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	214	545	0	0	592	569	137	253	22			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1241	2672	0	0	1189	519	216	442	38			
Arrive On Green	0.72	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1642	3365	291			
Grp Volume(v), veh/h	214	545	0	0	592	569	149	126	137			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1553	1788	1702	1808			
Q Serve(g_s), s	1.7	0.0	0.0	0.0	11.2	28.1	6.6	5.8	6.0			
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	11.2	28.1	6.6	5.8	6.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.92		0.16			
Lane Grp Cap(c), veh/h	1241	2672	0	0	1189	519	235	224	238			
V/C Ratio(X)	0.17	0.20	0.00	0.00	0.50	1.10	0.63	0.56	0.57			
Avail Cap(c_a), veh/h	1241	2672	0	0	1189	519	598	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.8	0.0	0.0	0.0	22.3	28.0	34.6	34.2	34.3			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.5	68.0	1.1	0.8	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.0	0.0	4.5	19.1	2.9	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.9	0.2	0.0	0.0	23.8	96.0	35.6	35.1	35.1			
LnGrp LOS	A	A	A	A	C	F	D	D	D			
Approach Vol, veh/h	759			1161			412					
Approach Delay, s/veh	2.3			59.2			35.3					
Approach LOS	A			E			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.1			35.1			33.0			15.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			3.7			30.1			8.6		
Green Ext Time (p_c), s	4.5			0.4			0.0			1.5		

Intersection Summary

HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	17	44	12	924	19	0	0	0
Future Volume (veh/h)	0	0	0	0	17	44	12	924	19	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	56	15	1185	24			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	76	113	3143	63			
Arrive On Green				0.00	0.06	0.06	0.63	0.63	0.63			
Sat Flow, veh/h				0	465	1184	18	4976	100			
Grp Volume(v), veh/h				0	0	78	449	372	404			
Grp Sat Flow(s),veh/h/ln				0	0	1649	1865	1549	1681			
Q Serve(g_s), s				0.0	0.0	1.7	0.0	4.2	4.2			
Cycle Q Clear(g_c), s				0.0	0.0	1.7	4.2	4.2	4.2			
Prop In Lane				0.00		0.72	0.03		0.06			
Lane Grp Cap(c), veh/h				0	0	106	1280	978	1062			
V/C Ratio(X)				0.00	0.00	0.73	0.35	0.38	0.38			
Avail Cap(c_a), veh/h				0	0	1807	3152	2545	2762			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	16.8	3.3	3.3	3.3			
Incr Delay (d2), s/veh				0.0	0.0	3.6	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.6	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	20.4	3.5	3.6	3.6			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					78			1224				
Approach Delay, s/veh					20.4			3.6				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		28.7						7.9				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		6.2						3.7				
Green Ext Time (p_c), s		16.8						0.3				
Intersection Summary												
HCM 6th Ctrl Delay				4.6								
HCM 6th LOS				A								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	129	55	342	454	60	201	287	61	60	272	83
Future Volume (veh/h)	93	129	55	342	454	60	201	287	61	60	272	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	139	59	368	488	65	216	309	66	65	292	89
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	130	373	314	414	580	77	260	1150	235	84	677	194
Arrive On Green	0.07	0.20	0.20	0.23	0.36	0.36	0.15	0.27	0.27	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1573	1781	1615	215	1781	4227	864	1781	3912	1119
Grp Volume(v), veh/h	100	139	59	368	0	553	216	246	129	65	252	129
Grp Sat Flow(s),veh/h/ln	1781	1870	1573	1781	0	1831	1781	1702	1687	1781	1702	1627
Q Serve(g_s), s	4.2	4.9	2.4	15.3	0.0	21.2	9.0	4.3	4.6	2.8	5.0	5.5
Cycle Q Clear(g_c), s	4.2	4.9	2.4	15.3	0.0	21.2	9.0	4.3	4.6	2.8	5.0	5.5
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.51	1.00		0.69
Lane Grp Cap(c), veh/h	130	373	314	414	0	657	260	926	459	84	589	282
V/C Ratio(X)	0.77	0.37	0.19	0.89	0.00	0.84	0.83	0.27	0.28	0.77	0.43	0.46
Avail Cap(c_a), veh/h	700	980	824	700	0	959	700	2674	1325	700	2674	1278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	34.8	26.4	25.4	28.4	0.0	22.5	31.7	21.8	21.9	36.0	28.2	28.4
Incr Delay (d2), s/veh	3.6	0.2	0.1	4.1	0.0	4.6	2.6	0.3	0.6	5.5	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	2.2	0.9	6.8	0.0	9.5	3.9	1.7	1.8	1.3	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	26.7	25.5	32.5	0.0	27.1	34.3	22.1	22.5	41.5	29.1	30.4
LnGrp LOS	D	C	C	C	A	C	C	C	C	D	C	C
Approach Vol, veh/h	298			921			591			446		
Approach Delay, s/veh	30.4			29.2			26.7			31.3		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	26.1	22.2	20.1	15.6	18.5	10.0	32.3				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.8	6.6	17.3	6.9	11.0	7.5	6.2	23.2				
Green Ext Time (p_c), s	0.1	4.7	0.5	0.6	0.3	4.6	0.1	3.6				

Intersection Summary

HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2026 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	75	194	137	262	0	0	0	0	87	1454	580
Future Volume (veh/h)	0	75	194	137	262	0	0	0	0	87	1454	580
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	85	220	156	298	0				99	1652	659
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	459	389	248	470	0				1100	2238	851
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1585	747	2002	0				1781	3624	1379
Grp Volume(v), veh/h	0	85	220	218	236	0				99	1547	764
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1047	1617	0				1781	1702	1599
Q Serve(g_s), s	0.0	3.4	11.5	16.1	12.2	0.0				2.1	30.1	33.2
Cycle Q Clear(g_c), s	0.0	3.4	11.5	19.5	12.2	0.0				2.1	30.1	33.2
Prop In Lane	0.00		1.00	0.72		0.00				1.00		0.86
Lane Grp Cap(c), veh/h	0	459	389	322	396	0				1100	2102	987
V/C Ratio(X)	0.00	0.19	0.57	0.68	0.60	0.00				0.09	0.74	0.77
Avail Cap(c_a), veh/h	0	593	503	410	513	0				1129	2158	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.2	31.3	35.9	31.6	0.0				7.3	12.7	13.3
Incr Delay (d2), s/veh	0.0	0.1	0.5	2.5	1.1	0.0				0.1	1.5	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
%ile BackOfQ(50%),veh/ln	0.0	1.5	4.4	5.0	4.9	0.0				0.8	10.6	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.3	31.8	38.4	32.6	0.0				7.4	14.2	17.5
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		305			454						2410	
Approach Delay, s/veh		30.8			35.4						15.0	
Approach LOS		C			D						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				29.9		64.7		29.9				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				13.5		35.2		21.5				
Green Ext Time (p_c), s				0.6		23.3		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			19.4									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	63	17	82	0	33	22	361	1010	21	0	0	0
Future Volume (veh/h)	63	17	82	0	33	22	361	1010	21	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	66	18	86	0	35	23	380	1063	22			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	313	54	1055	0	140	92	949	1896	39			
Arrive On Green	0.13	0.13	0.13	0.00	0.13	0.13	0.53	0.53	0.53			
Sat Flow, veh/h	869	401	1567	0	1044	686	1781	3558	74			
Grp Volume(v), veh/h	84	0	86	0	0	58	380	531	554			
Grp Sat Flow(s), veh/h/ln	1270	0	1567	0	0	1730	1781	1777	1855			
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	1.0	4.1	6.5	6.5			
Cycle Q Clear(g_c), s	2.3	0.0	0.0	0.0	0.0	1.0	4.1	6.5	6.5			
Prop In Lane	0.79		1.00	0.00		0.40	1.00		0.04			
Lane Grp Cap(c), veh/h	367	0	1055	0	0	232	949	947	988			
V/C Ratio(X)	0.23	0.00	0.08	0.00	0.00	0.25	0.40	0.56	0.56			
Avail Cap(c_a), veh/h	1480	0	2280	0	0	1585	1604	1600	1670			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	13.3	0.0	1.9	0.0	0.0	12.7	4.5	5.1	5.1			
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.2	0.3	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			
%ile BackOfQ(50%), veh/ln	0.5	0.0	0.8	0.0	0.0	0.3	0.7	1.2	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.7	0.0	2.0	0.0	0.0	12.9	4.8	5.6	5.6			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		170			58			1465				
Approach Delay, s/veh		7.7			12.9			5.4				
Approach LOS		A			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		22.0		10.8				10.8				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+l1), s		8.5		4.3				3.0				
Green Ext Time (p_c), s		8.9		0.7				0.2				

Intersection Summary

HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	42	38	133	7	7	44	499	126	103	600	18
Future Volume (veh/h)	26	42	38	133	7	7	44	499	126	103	600	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	46	42	146	8	8	48	548	138	113	659	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	478	223	204	413	213	213	69	2016	615	217	2131	64
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.39	0.39	0.06	0.42	0.42
Sat Flow, veh/h	1392	899	821	1305	856	856	1781	5106	1557	3456	5087	154
Grp Volume(v), veh/h	29	0	88	146	0	16	48	548	138	113	440	239
Grp Sat Flow(s),veh/h/ln	1392	0	1719	1305	0	1713	1781	1702	1557	1728	1702	1837
Q Serve(g_s), s	0.8	0.0	2.1	5.1	0.0	0.4	1.3	3.7	3.0	1.6	4.4	4.4
Cycle Q Clear(g_c), s	1.2	0.0	2.1	7.1	0.0	0.4	1.3	3.7	3.0	1.6	4.4	4.4
Prop In Lane	1.00		0.48	1.00		0.50	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	478	0	427	413	0	425	69	2016	615	217	1426	770
V/C Ratio(X)	0.06	0.00	0.21	0.35	0.00	0.04	0.69	0.27	0.22	0.52	0.31	0.31
Avail Cap(c_a), veh/h	1232	0	1357	1120	0	1352	1055	6048	1844	2046	4032	2176
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	15.1	17.9	0.0	14.5	24.1	10.4	10.2	23.0	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.0	4.6	0.1	0.3	0.7	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 BackOfQ(50%),veh/ln	0.2	0.0	0.7	1.4	0.0	0.1	0.6	1.1	0.9	0.6	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	15.2	18.1	0.0	14.5	28.7	10.5	10.5	23.7	9.9	10.1
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	A	B
Approach Vol, veh/h	117		162			734			792			
Approach Delay, s/veh	15.1		17.7			11.7			11.9			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.6	25.7	17.4		6.4	26.9	17.4					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	13.6	5.7	4.1		3.3	6.4	9.1					
Green Ext Time (p_c), s	0.2	8.6	0.4		0.0	4.9	0.3					

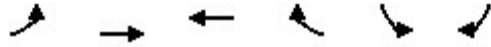
Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2400	10	0	2452	0	3
Future Vol, veh/h	2400	10	0	2452	0	3
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	2637	11	0	2695	0	3
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1324
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	126
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	126
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		34.3		
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	126	-	-	-		
HCM Lane V/C Ratio	0.026	-	-	-		
HCM Control Delay (s)	34.3	-	-	-		
HCM Lane LOS	D	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑↑	↑↑↑	↗	↗	↗
Traffic Volume (veh/h)	956	1574	2170	56	28	79
Future Volume (veh/h)	956	1574	2170	56	28	79
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1086	1789	2466	0	32	90
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	984	4179	2573		130	115
Arrive On Green	0.28	0.84	0.52	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1086	1789	2466	0	32	90
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	33.6	10.7	55.9	0.0	2.0	6.6
Cycle Q Clear(g_c), s	33.6	10.7	55.9	0.0	2.0	6.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	984	4179	2573		130	115
V/C Ratio(X)	1.10	0.43	0.96		0.25	0.78
Avail Cap(c_a), veh/h	984	4179	2573		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.41	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	2.4	27.3	0.0	51.7	53.8
Incr Delay (d2), s/veh	61.4	0.3	5.2	0.0	0.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.1	1.7	21.2	0.0	0.9	5.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	103.6	2.7	32.5	0.0	52.0	58.1
LnGrp LOS	F	A	C		D	E
Approach Vol, veh/h		2875	2466	A	122	
Approach Delay, s/veh		40.8	32.5		56.5	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.2		13.8	38.0	66.2
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	33.6	* 40
Max Q Clear Time (g_c+I1), s		12.7		8.6	35.6	57.9
Green Ext Time (p_c), s		53.4		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			37.4			
HCM 6th LOS			D			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2026 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑		↰	↑↑		↰	↑↑↑		↰	↑↑↑	↰
Traffic Volume (veh/h)	320	750	67	48	1040	49	130	246	69	43	142	528
Future Volume (veh/h)	320	750	67	48	1040	49	130	246	69	43	142	528
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	344	806	72	52	1118	53	140	265	74	46	153	568
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	366	1640	147	711	2409	114	160	1051	273	59	1058	619
Arrive On Green	0.21	0.50	0.50	0.53	0.93	0.93	0.09	0.26	0.26	0.03	0.21	0.21
Sat Flow, veh/h	1781	3295	294	1781	3454	164	1781	3984	1036	1781	5106	1416
Grp Volume(v), veh/h	344	435	443	52	575	596	140	224	115	46	153	568
Grp Sat Flow(s),veh/h/ln	1781	1777	1812	1781	1777	1841	1781	1702	1616	1781	1702	1416
Q Serve(g_s), s	26.6	22.8	22.8	2.0	5.8	5.8	10.9	7.2	7.9	3.6	3.4	29.0
Cycle Q Clear(g_c), s	26.6	22.8	22.8	2.0	5.8	5.8	10.9	7.2	7.9	3.6	3.4	29.0
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	366	885	902	711	1239	1284	160	898	426	59	1058	619
V/C Ratio(X)	0.94	0.49	0.49	0.07	0.46	0.46	0.87	0.25	0.27	0.78	0.14	0.92
Avail Cap(c_a), veh/h	377	885	902	711	1239	1284	160	898	426	117	1058	619
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.98	0.98	0.98	0.95	0.95	0.95
Uniform Delay (d), s/veh	54.8	23.4	23.4	20.2	1.7	1.7	62.9	40.6	40.9	67.2	45.4	39.7
Incr Delay (d2), s/veh	31.1	1.9	1.9	0.2	1.1	1.1	35.7	0.2	0.4	7.4	0.1	18.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	9.8	10.0	0.9	1.6	1.7	6.5	3.1	3.2	1.8	1.5	21.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.9	25.3	25.3	20.4	2.8	2.8	98.7	40.8	41.2	74.6	45.4	58.1
LnGrp LOS	F	C	C	C	A	A	F	D	D	E	D	E
Approach Vol, veh/h	1222			1223			479			767		
Approach Delay, s/veh	42.4			3.6			57.8			56.6		
Approach LOS	D			A			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	41.9	63.1	74.9	17.0	34.0	33.1	104.9					
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	9.2	* 33	9.7	* 70	12.6	29.0	29.6	49.2				
Max Q Clear Time (g_c+1/6), s	9.9	9.9	4.0	24.8	12.9	31.0	28.6	7.8				
Green Ext Time (p_c), s	0.0	2.3	0.0	9.1	0.0	0.0	0.1	7.9				

Intersection Summary

HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↔↑↑	↔
Traffic Volume (veh/h)	0	758	73	29	181	0	0	0	0	182	217	980
Future Volume (veh/h)	0	758	73	29	181	0	0	0	0	182	217	980
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	852	82	33	203	0				204	244	1101
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1318	127	58	1660	0				796	1673	696
Arrive On Green	0.00	0.81	0.81	0.03	0.47	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3364	315	1781	3647	0				1781	3741	1556
Grp Volume(v), veh/h	0	463	471	33	203	0				204	244	1101
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1781	1870	1556
Q Serve(g_s), s	0.0	14.8	14.8	2.6	4.5	0.0				10.0	5.4	62.6
Cycle Q Clear(g_c), s	0.0	14.8	14.8	2.6	4.5	0.0				10.0	5.4	62.6
Prop In Lane	0.00		0.17	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	716	729	58	1660	0				796	1673	696
V/C Ratio(X)	0.00	0.65	0.65	0.57	0.12	0.00				0.26	0.15	1.58
Avail Cap(c_a), veh/h	0	716	729	99	1660	0				796	1673	696
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.91	0.91	0.82	0.82	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.5	9.5	66.8	21.1	0.0				24.2	22.9	38.7
Incr Delay (d2), s/veh	0.0	4.1	4.0	2.7	0.1	0.0				0.8	0.2	268.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.1	4.1	1.2	1.9	0.0				4.5	2.5	75.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.6	13.5	69.4	21.2	0.0				24.9	23.1	307.6
LnGrp LOS	A	B	B	E	C	A				C	C	F
Approach Vol, veh/h		934			236						1549	
Approach Delay, s/veh		13.6			27.9						225.6	
Approach LOS		B			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	63.0		68.0		72.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.8	* 55		62.6		65.4						
Max Q Clear Time (g_c+I14), s	14.6	16.8		64.6		6.5						
Green Ext Time (p_c), s	0.0	1.8		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	135.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2026 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	676	355	0	0	184	142	45	104	36	0	0	0
Future Volume (veh/h)	676	355	0	0	184	142	45	104	36	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	719	378	0	0	196	151	48	111	38			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1360	1481	0	0	657	478	88	221	132			
Arrive On Green	0.39	0.79	0.00	0.00	0.34	0.34	0.09	0.09	0.09			
Sat Flow, veh/h	3456	1870	0	0	2045	1420	1029	2567	1539			
Grp Volume(v), veh/h	719	378	0	0	177	170	85	74	38			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1595	1819	1777	1539			
Q Serve(g_s), s	12.7	4.2	0.0	0.0	5.9	6.3	3.6	3.2	1.9			
Cycle Q Clear(g_c), s	12.7	4.2	0.0	0.0	5.9	6.3	3.6	3.2	1.9			
Prop In Lane	1.00		0.00	0.00		0.89	0.57		1.00			
Lane Grp Cap(c), veh/h	1360	1481	0	0	598	537	156	153	132			
V/C Ratio(X)	0.53	0.26	0.00	0.00	0.30	0.32	0.54	0.49	0.29			
Avail Cap(c_a), veh/h	1360	1481	0	0	598	537	477	466	404			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.74	0.74	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	18.6	2.2	0.0	0.0	19.6	19.7	35.1	34.9	34.3			
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.0	0.1	0.1	1.1	0.9	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			
%ile BackOfQ(50%),veh/ln	4.7	0.7	0.0	0.0	2.3	2.2	1.6	1.4	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	2.5	0.0	0.0	19.7	19.8	36.1	35.7	34.7			
LnGrp LOS	B	A	A	A	B	B	D	D	C			
Approach Vol, veh/h	1097				347				197			
Approach Delay, s/veh	13.2				19.7				35.7			
Approach LOS	B				B				D			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	68.2				36.4		31.8		11.8			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	49.2				23.8		* 21		21.0			
Max Q Clear Time (g_c+I1), s	6.2				14.7		8.3		5.6			
Green Ext Time (p_c), s	1.4				1.9		1.0		0.5			

Intersection Summary

HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	1738	532	0	0	1572
Future Volume (veh/h)	100	1738	532	0	0	1572
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	108	0	572	0	0	1690
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	156		3181	0	259	5172
Arrive On Green	0.09	0.00	0.64	0.00	0.00	0.82
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	108	0	572	0	0	1690
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	6.5	0.0	5.2	0.0	0.0	7.2
Cycle Q Clear(g_c), s	6.5	0.0	5.2	0.0	0.0	7.2
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	156		3181	0	259	5172
V/C Ratio(X)	0.69		0.18	0.00	0.00	0.33
Avail Cap(c_a), veh/h	486		3181	0	742	5172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.00	0.86	0.00	0.00	0.90
Uniform Delay (d), s/veh	48.7	0.0	8.1	0.0	0.0	2.3
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	1.6	0.0	0.0	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.1	0.0	8.2	0.0	0.0	2.5
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	108	A	572			1690
Approach Delay, s/veh	50.1		8.2			2.5
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.4	75.1			95.5	14.5
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.8	20.0			70.2	30.0
Max Q Clear Time (g_c+I10), s	10.6	7.2			9.2	8.5
Green Ext Time (p_c), s	0.0	3.9			25.5	0.1

Intersection Summary

HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2026 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	243	1731	133	115	282	0	0	185	25
Future Volume (veh/h)	0	0	0	243	1731	133	115	282	0	0	185	25
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				259	1841	141	122	300	0	0	197	27
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				315	2389	187	151	1453	0	0	636	82
Arrive On Green				0.18	0.18	0.18	0.17	0.57	0.00	0.00	0.14	0.14
Sat Flow, veh/h				582	4416	346	1781	5274	0	0	4664	581
Grp Volume(v), veh/h				820	687	734	122	300	0	0	146	78
Grp Sat Flow(s),veh/h/ln				1841	1702	1800	1781	1702	0	0	1702	1672
Q Serve(g_s), s				47.2	42.1	42.6	7.3	3.2	0.0	0.0	4.2	4.6
Cycle Q Clear(g_c), s				47.2	42.1	42.6	7.3	3.2	0.0	0.0	4.2	4.6
Prop In Lane				0.32		0.19	1.00		0.00	0.00		0.35
Lane Grp Cap(c), veh/h				996	921	974	151	1453	0	0	482	237
V/C Ratio(X)				0.82	0.75	0.75	0.81	0.21	0.00	0.00	0.30	0.33
Avail Cap(c_a), veh/h				996	921	974	253	1796	0	0	532	261
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.66	0.66	0.66	0.68	0.68	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				40.1	38.0	38.2	44.8	17.6	0.0	0.0	42.3	42.5
Incr Delay (d2), s/veh				5.2	3.7	3.6	2.7	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 BackOfQ(50%),veh/ln				24.7	20.1	21.5	3.0	1.2	0.0	0.0	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.3	41.7	41.9	47.5	17.7	0.0	0.0	42.6	43.0
LnGrp LOS				D	D	D	D	B	A	A	D	D
Approach Vol, veh/h					2241			422			224	
Approach Delay, s/veh					43.1			26.3			42.7	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.2	22.0		65.4	37.2				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				15.6	* 17		59.5	38.7				
Max Q Clear Time (g_c+I1), s				9.3	6.6		49.2	5.2				
Green Ext Time (p_c), s				0.1	0.7		8.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay											40.6	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	276	2075	0	0	0	0	0	175	58
Future Volume (veh/h)	0	0	0	276	2075	0	0	0	0	0	175	58
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				291	2184	0				0	184	61
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				419	3386	0				0	701	211
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				578	4836	0				0	4005	1154
Grp Volume(v), veh/h				927	1548	0				0	161	84
Grp Sat Flow(s),veh/h/ln				1841	1702	0				0	1702	1587
Q Serve(g_s), s				50.5	44.8	0.0				0.0	4.5	5.0
Cycle Q Clear(g_c), s				50.5	44.8	0.0				0.0	4.5	5.0
Prop In Lane				0.31		0.00				0.00		0.73
Lane Grp Cap(c), veh/h				1336	2469	0				0	622	290
V/C Ratio(X)				0.69	0.63	0.00				0.00	0.26	0.29
Avail Cap(c_a), veh/h				1336	2469	0				0	622	290
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	28.5	0.0				0.0	38.6	38.8
Incr Delay (d2), s/veh				3.0	1.2	0.0				0.0	1.0	2.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.9	20.7	0.0				0.0	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.7	29.7	0.0				0.0	39.6	41.3
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2475						245	
Approach Delay, s/veh					31.2						40.2	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				25.0		85.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				20.1		79.8						
Max Q Clear Time (g_c+l1), s				7.0		52.5						
Green Ext Time (p_c), s				0.3		4.6						
Intersection Summary												
HCM 6th Ctrl Delay											32.0	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2283	124	71	96	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2283	124	71	96	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2429	132	76	102	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3581	192	263	390	0			
Arrive On Green				0.00	0.24	0.24	0.18	0.18	0.00			
Sat Flow, veh/h				0	5123	266	1440	2228	0			
Grp Volume(v), veh/h				0	1660	901	95	83	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1816	1798	1777	0			
Q Serve(g_s), s				0.0	48.7	49.7	5.0	4.4	0.0			
Cycle Q Clear(g_c), s				0.0	48.7	49.7	5.0	4.4	0.0			
Prop In Lane				0.00		0.15	0.80		0.00			
Lane Grp Cap(c), veh/h				0	2460	1313	329	325	0			
V/C Ratio(X)				0.00	0.67	0.69	0.29	0.26	0.00			
Avail Cap(c_a), veh/h				0	2460	1313	329	325	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	30.2	30.5	38.8	38.5	0.0			
Incr Delay (d2), s/veh				0.0	1.5	2.9	2.2	1.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	22.6	25.1	2.4	2.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	31.7	33.5	41.0	40.4	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2561			178				
Approach Delay, s/veh					32.3			40.7				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.0		25.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						79.5		20.1				
Max Q Clear Time (g_c+I1), s						51.7		7.0				
Green Ext Time (p_c), s						23.1		0.7				
Intersection Summary												
HCM 6th Ctrl Delay											32.8	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	342	2454	0	0	0	0	0	219	39
Future Volume (veh/h)	0	0	0	342	2454	0	0	0	0	0	219	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				349	2504	0				0	223	40
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				434	3366	0				0	649	275
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				599	4814	0				0	3647	1507
Grp Volume(v), veh/h				1073	1780	0				0	223	40
Grp Sat Flow(s),veh/h/ln				1840	1702	0				0	1777	1507
Q Serve(g_s), s				60.4	52.9	0.0				0.0	6.0	2.5
Cycle Q Clear(g_c), s				60.4	52.9	0.0				0.0	6.0	2.5
Prop In Lane				0.33		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1333	2466	0				0	649	275
V/C Ratio(X)				0.80	0.72	0.00				0.00	0.34	0.15
Avail Cap(c_a), veh/h				1333	2466	0				0	649	275
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				34.5	31.6	0.0				0.0	39.2	37.7
Incr Delay (d2), s/veh				5.3	1.9	0.0				0.0	1.4	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				31.7	24.7	0.0				0.0	2.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.8	33.5	0.0				0.0	40.6	38.8
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2853						263	
Approach Delay, s/veh					35.9						40.4	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				25.0		85.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				20.1		79.7						
Max Q Clear Time (g_c+l1), s				8.0		62.4						
Green Ext Time (p_c), s				1.2		16.0						
Intersection Summary												
HCM 6th Ctrl Delay											36.2	
HCM 6th LOS											D	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2737	78	69	55	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2737	78	69	55	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2822	80	71	57	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3724	104	313	312	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5270	143	1781	1870	0			
Grp Volume(v), veh/h				0	1873	1029	71	57	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1841	1781	1777	0			
Q Serve(g_s), s				0.0	36.3	37.6	3.8	3.0	0.0			
Cycle Q Clear(g_c), s				0.0	36.3	37.6	3.8	3.0	0.0			
Prop In Lane				0.00		0.08	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2485	1344	313	312	0			
V/C Ratio(X)				0.00	0.75	0.77	0.23	0.18	0.00			
Avail Cap(c_a), veh/h				0	2485	1344	313	312	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	8.9	9.1	38.9	38.6	0.0			
Incr Delay (d2), s/veh				0.0	2.2	4.2	1.7	1.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	11.9	14.1	1.8	1.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	11.1	13.3	40.6	39.9	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2902			128				
Approach Delay, s/veh					11.9			40.3				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						39.6		5.8				
Green Ext Time (p_c), s						35.1		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.1								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	135	480	1	100	0	0	0	17
Future Vol, veh/h	0	0	0	0	135	480	1	100	0	0	0	17
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	139	495	1	103	0	0	0	18
Major/Minor	Major2			Minor1			Minor2					
Conflicting Flow All				-	-	0	91	639	-	-	-	343
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	91	639	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	883	392	0	0	0	653
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	906	469	0	0	0	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	859	390	-	-	-	650
Mov Cap-2 Maneuver				-	-	-	859	390	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	882	467	-	-	-	-
Approach	WB			NB			SB					
HCM Control Delay, s	0			17.5			10.7					
HCM LOS				C			B					
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	390	-	-	650								
HCM Lane V/C Ratio	0.264	-	-	0.027								
HCM Control Delay (s)	17.5	-	-	10.7								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	526	83	1110	632	0
Future Volume (veh/h)	0	0	0	0	0	0	0	526	83	1110	632	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	598	94	1261	718	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1112	345	3464	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.22	0.22	0.92	1.00	0.00
Sat Flow, veh/h		0					0	5149	1546	5023	1826	0
Grp Volume(v), veh/h		0.0					0	598	94	1261	718	0
Grp Sat Flow(s),veh/h/ln							0	1662	1546	1674	1826	0
Q Serve(g_s), s							0.0	11.6	5.5	3.4	0.0	0.0
Cycle Q Clear(g_c), s							0.0	11.6	5.5	3.4	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1112	345	3464	1740	0
V/C Ratio(X)							0.00	0.54	0.27	0.36	0.41	0.00
Avail Cap(c_a), veh/h							0	1205	374	3464	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.94	0.94	0.00
Uniform Delay (d), s/veh							0.0	37.7	35.3	1.6	0.0	0.0
Incr Delay (d2), s/veh							0.0	1.1	1.1	0.1	0.7	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	4.7	2.1	0.7	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	38.8	36.4	1.6	0.7	0.0
LnGrp LOS							A	D	D	A	A	A
Approach Vol, veh/h								692			1979	
Approach Delay, s/veh								38.5			1.3	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	80.3	29.7					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+I1), s	5.4	13.6					2.0					
Green Ext Time (p_c), s	5.6	5.9					7.1					
Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑					↑↑↑↑		↑	↑↑↑↑	
Traffic Volume (veh/h)	54	1062	67	0	0	0	0	336	196	90	324	0
Future Volume (veh/h)	54	1062	67	0	0	0	0	336	196	90	324	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	59	1167	74				0	369	215	99	356	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	146	3066	945				0	625	279	129	1512	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.14	0.59	0.00
Sat Flow, veh/h	238	5024	1549				0	3572	1521	1781	5274	0
Grp Volume(v), veh/h	460	766	74				0	369	215	99	356	0
Grp Sat Flow(s),veh/h/ln	1858	1702	1549				0	1702	1521	1781	1702	0
Q Serve(g_s), s	23.7	21.4	4.3				0.0	10.9	14.8	5.9	3.6	0.0
Cycle Q Clear(g_c), s	23.7	21.4	4.3				0.0	10.9	14.8	5.9	3.6	0.0
Prop In Lane	0.13		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1134	2078	945				0	625	279	129	1512	0
V/C Ratio(X)	0.41	0.37	0.08				0.00	0.59	0.77	0.77	0.24	0.00
Avail Cap(c_a), veh/h	1134	2078	945				0	931	416	350	2581	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.70	0.70	0.70				0.00	1.00	1.00	0.91	0.91	0.00
Uniform Delay (d), s/veh	26.6	25.6	18.8				0.0	41.1	42.7	46.1	16.5	0.0
Incr Delay (d2), s/veh	0.8	0.4	0.1				0.0	1.0	5.5	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	2.0	9.8	1.5				0.0	4.6	5.9	2.5	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	26.0	18.9				0.0	42.1	48.2	49.4	16.6	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1300							584		455		
Approach Delay, s/veh	26.1							44.4		23.7		
Approach LOS	C							D		C		
Timer - Assigned Phs	2		4				7		8			
Phs Duration (G+Y+Rc), s	72.0		38.0				12.4		25.6			
Change Period (Y+Rc), s	4.9		5.4				4.4		* 5.4			
Max Green Setting (Gmax), s	44.1		55.6				21.6		* 30			
Max Q Clear Time (g_c+I1), s	25.7		5.6				7.9		16.8			
Green Ext Time (p_c), s	11.3		2.0				0.1		3.4			

Intersection Summary

HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1320	32	0	0	0	0	0	0	146	316	0
Future Volume (veh/h)	0	1320	32	0	0	0	0	0	0	146	316	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1419	34							157	340	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2895	69							529	1271	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5296	123							1528	3838	0
Grp Volume(v), veh/h	0	942	511							184	313	0
Grp Sat Flow(s),veh/h/ln	0	1702	1846							1794	1702	0
Q Serve(g_s), s	0.0	27.3	27.3							10.4	9.2	0.0
Cycle Q Clear(g_c), s	0.0	27.3	27.3							10.4	9.2	0.0
Prop In Lane	0.00		0.07							0.85		0.00
Lane Grp Cap(c), veh/h	0	1922	1042							621	1179	0
V/C Ratio(X)	0.00	0.49	0.49							0.30	0.27	0.00
Avail Cap(c_a), veh/h	0	1922	1042							621	1179	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.6	30.6							36.4	35.9	0.0
Incr Delay (d2), s/veh	0.0	0.9	1.6							1.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.6	13.9							5.2	4.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.5	32.2							37.6	36.5	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1453									497	
Approach Delay, s/veh		31.7									36.9	
Approach LOS		C									D	
Timer - Assigned Phs		2										4
Phs Duration (G+Y+Rc), s		67.0										43.0
Change Period (Y+Rc), s		4.9										4.9
Max Green Setting (Gmax), s		62.1										38.1
Max Q Clear Time (g_c+l1), s		29.3										12.4
Green Ext Time (p_c), s		4.3										1.3
Intersection Summary												
HCM 6th Ctrl Delay			33.1									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	49	1659	0	0	0	0	0	97	208	0	0	0
Future Volume (veh/h)	49	1659	0	0	0	0	0	97	208	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	53	1784	0				0	104	224			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	86	3079	0				0	551	462			
Arrive On Green	0.20	0.20	0.00				0.00	0.31	0.31			
Sat Flow, veh/h	143	5292	0				0	1870	1490			
Grp Volume(v), veh/h	690	1147	0				0	104	224			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1490			
Q Serve(g_s), s	37.2	33.4	0.0				0.0	4.7	13.4			
Cycle Q Clear(g_c), s	37.2	33.4	0.0				0.0	4.7	13.4			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1120	2046	0				0	551	462			
V/C Ratio(X)	0.62	0.56	0.00				0.00	0.19	0.48			
Avail Cap(c_a), veh/h	1120	2046	0				0	551	462			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	32.5	31.0	0.0				0.0	27.8	30.8			
Incr Delay (d2), s/veh	2.5	1.1	0.0				0.0	0.8	3.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ft	9.3	15.5	0.0				0.0	2.1	5.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	32.1	0.0				0.0	28.6	34.4			
LnGrp LOS	D	C	A				A	C	C			
Approach Vol, veh/h	1837					328						
Approach Delay, s/veh	33.2					32.6						
Approach LOS	C					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	71.0					39.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	66.1					34.1						
Max Q Clear Time (g_c+l1), s	39.2					15.4						
Green Ext Time (p_c), s	16.1					2.1						
Intersection Summary												
HCM 6th Ctrl Delay			33.1									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1986	70	0	0	0	0	0	0	207	351	0
Future Volume (veh/h)	0	1986	70	0	0	0	0	0	0	207	351	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2027	71							211	358	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3089	108							536	1069	0
Arrive On Green	0.00	0.20	0.20							0.10	0.10	0.00
Sat Flow, veh/h	0	5233	177							1781	3647	0
Grp Volume(v), veh/h	0	1361	737							211	358	0
Grp Sat Flow(s),veh/h/ln	0	1702	1837							1781	1777	0
Q Serve(g_s), s	0.0	40.5	40.6							12.2	10.3	0.0
Cycle Q Clear(g_c), s	0.0	40.5	40.6							12.2	10.3	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2076	1121							536	1069	0
V/C Ratio(X)	0.00	0.66	0.66							0.39	0.33	0.00
Avail Cap(c_a), veh/h	0	2076	1121							536	1069	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.3	33.4							40.1	39.3	0.0
Incr Delay (d2), s/veh	0.0	1.6	3.0							2.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.8	20.9							6.2	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.9	36.4							42.3	40.1	0.0
LnGrp LOS	A	C	D							D	D	A
Approach Vol, veh/h		2098									569	
Approach Delay, s/veh		35.4									40.9	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		72.0	38.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		67.1	33.1									
Max Q Clear Time (g_c+l1), s		42.6	14.2									
Green Ext Time (p_c), s		17.4	3.0									
Intersection Summary												
HCM 6th Ctrl Delay			36.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	86	1859	0	0	0	0	0	67	57	0	0	0
Future Volume (veh/h)	86	1859	0	0	0	0	0	67	57	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	93	2021	0				0	73	62			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	149	3445	0				0	437	335			
Arrive On Green	0.23	0.23	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	218	5214	0				0	2008	1468			
Grp Volume(v), veh/h	794	1320	0				0	67	68			
Grp Sat Flow(s),veh/h/ln	1859	1702	0				0	1777	1606			
Q Serve(g_s), s	42.3	37.9	0.0				0.0	3.3	3.7			
Cycle Q Clear(g_c), s	42.3	37.9	0.0				0.0	3.3	3.7			
Prop In Lane	0.12		0.00				0.00		0.91			
Lane Grp Cap(c), veh/h	1270	2324	0				0	405	366			
V/C Ratio(X)	0.63	0.57	0.00				0.00	0.17	0.19			
Avail Cap(c_a), veh/h	1270	2324	0				0	405	366			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	29.9	28.2	0.0				0.0	34.1	34.2			
Incr Delay (d2), s/veh	2.3	1.0	0.0				0.0	0.9	1.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	21.8	17.5	0.0				0.0	1.6	1.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	29.2	0.0				0.0	34.9	35.3			
LnGrp LOS	C	C	A				A	C	D			
Approach Vol, veh/h	2114					135						
Approach Delay, s/veh	30.4					35.1						
Approach LOS	C					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	80.0					30.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	75.1					25.1						
Max Q Clear Time (g_c+l1), s	44.3					5.7						
Green Ext Time (p_c), s	20.7					0.7						
Intersection Summary												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	51	771	963	69	78	161
Future Volume (veh/h)	51	771	963	69	78	161
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	53	803	1003	72	81	168
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	69	3912	3361	241	430	197
Arrive On Green	0.03	0.53	1.00	1.00	0.12	0.12
Sat Flow, veh/h	1781	5149	4904	340	3456	1585
Grp Volume(v), veh/h	53	803	703	372	81	168
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1756	1728	1585
Q Serve(g_s), s	3.5	10.1	0.0	0.0	2.5	12.2
Cycle Q Clear(g_c), s	3.5	10.1	0.0	0.0	2.5	12.2
Prop In Lane	1.00			0.19	1.00	1.00
Lane Grp Cap(c), veh/h	69	3912	2356	1245	430	197
V/C Ratio(X)	0.77	0.21	0.30	0.30	0.19	0.85
Avail Cap(c_a), veh/h	205	3912	2356	1245	1174	539
HCM Platoon Ratio	0.67	0.67	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	57.0	8.4	0.0	0.0	46.3	50.6
Incr Delay (d2), s/veh	6.4	0.1	0.3	0.6	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	3.2	0.1	0.2	1.1	10.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.4	8.5	0.3	0.6	46.4	54.6
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		856	1075		249	
Approach Delay, s/veh		11.9	0.4		51.9	
Approach LOS		B	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		98.4		19.6	8.9	89.5
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 67		40.1	13.6	49.2
Max Q Clear Time (g_c+I1), s		12.1		14.2	5.5	2.0
Green Ext Time (p_c), s		16.7		0.4	0.0	20.9
Intersection Summary						
HCM 6th Ctrl Delay			10.8			
HCM 6th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	101	774	13	12	1018	5	0	13	14	41	0	16
Future Volume (veh/h)	101	774	13	12	1018	5	0	13	14	41	0	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		1.00	1.00		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	798	13	12	1049	0	0	13	14	42	0	16
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	668	3594	58	60	1787		35	16	17	227	0	102
Arrive On Green	0.75	1.00	1.00	0.03	0.36	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5050	82	1781	4985	1585	1781	807	869	3456	0	1556
Grp Volume(v), veh/h	104	525	286	12	1049	0	0	0	27	42	0	16
Grp Sat Flow(s), veh/h/ln	1781	1662	1809	1781	1662	1585	1781	0	1676	1728	0	1556
Q Serve(g_s), s	1.9	0.0	0.0	0.8	20.2	0.0	0.0	0.0	1.9	1.4	0.0	1.1
Cycle Q Clear(g_c), s	1.9	0.0	0.0	0.8	20.2	0.0	0.0	0.0	1.9	1.4	0.0	1.1
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	668	2365	1287	60	1787		35	0	33	227	0	102
V/C Ratio(X)	0.16	0.22	0.22	0.20	0.59		0.00	0.00	0.81	0.18	0.00	0.16
Avail Cap(c_a), veh/h	668	2365	1287	69	1787		92	0	87	996	0	448
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	0.0	55.4	30.8	0.0	0.0	0.0	57.6	52.1	0.0	52.0
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.6	1.4	0.0	0.0	0.0	15.5	0.1	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 BackOfQ(50%), veh/ln	0.7	0.1	0.1	0.3	8.0	0.0	0.0	0.0	1.0	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.5	0.2	0.4	56.0	32.2	0.0	0.0	0.0	73.1	52.3	0.0	52.3
LnGrp LOS	A	A	A	E	C		A	A	E	D	A	D
Approach Vol, veh/h	915			1061			A			27		
Approach Delay, s/veh	1.3			32.4			73.1			52.3		
Approach LOS	A			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.7			12.7	50.0	48.1		7.2				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.6	53.4		34.0	15.6	* 42		6.1				
Max Q Clear Time (g_c+I), s	12.8	2.0		3.4	3.9	22.2		3.9				
Green Ext Time (p_c), s	0.0	11.6		0.1	0.1	10.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay 19.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	826	90	268	1385	0	97	33	158	0	24	140
Future Volume (veh/h)	203	826	90	268	1385	0	97	33	158	0	24	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	852	93	276	1428	0	100	34	0	0	25	144
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	645	2786	1042	335	1794	0	398	215		0	113	155
Arrive On Green	0.36	0.56	0.56	0.10	0.29	0.00	0.12	0.12	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1537	3456	6537	0	3456	1870	1585	0	1870	2581
Grp Volume(v), veh/h	209	852	93	276	1428	0	100	34	0	0	25	144
Grp Sat Flow(s), veh/h/ln	1781	1662	1537	1728	1570	0	1728	1870	1585	0	1870	1291
Q Serve(g_s), s	10.0	10.7	2.5	9.2	24.8	0.0	3.1	1.9	0.0	0.0	1.5	6.6
Cycle Q Clear(g_c), s	10.0	10.7	2.5	9.2	24.8	0.0	3.1	1.9	0.0	0.0	1.5	6.6
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	645	2786	1042	335	1794	0	398	215		0	113	155
V/C Ratio(X)	0.32	0.31	0.09	0.82	0.80	0.00	0.25	0.16		0.00	0.22	0.93
Avail Cap(c_a), veh/h	645	2786	1042	454	1794	0	1084	586		0	113	155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	13.8	6.7	52.3	39.0	0.0	47.6	47.1	0.0	0.0	52.8	55.2
Incr Delay (d2), s/veh	0.1	0.3	0.2	0.6	0.4	0.0	0.1	0.1	0.0	0.0	1.0	51.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.1	3.8	1.1	3.9	9.2	0.0	1.3	0.9	0.0	0.0	0.7	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.3	14.1	6.8	52.9	39.3	0.0	47.7	47.2	0.0	0.0	53.8	106.3
LnGrp LOS	C	B	A	D	D	A	D	D		A	D	F
Approach Vol, veh/h	1154			1704			134			169		
Approach Delay, s/veh	15.9			41.5			47.6			98.5		
Approach LOS	B			D			D			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	71.7		12.0	48.4	39.1		18.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	5.5	38.5		7.1	20.6	* 34		37.0				
Max Q Clear Time (g_c+I1), s	11.2	12.7		8.6	12.0	26.8		5.1				
Green Ext Time (p_c), s	0.2	11.3		0.0	0.2	6.2		0.3				

Intersection Summary

HCM 6th Ctrl Delay 35.5

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	5	17	4	6	12	13	191	9	22	299	61
Future Volume (veh/h)	35	5	17	4	6	12	13	191	9	22	299	61
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		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	15	18	4	8	12	14	203	10	23	318	65
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	41	49	32	63	80	194	1003	49	211	881	177
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.11	0.29	0.29	0.12	0.30	0.30
Sat Flow, veh/h	1781	766	919	613	1226	1558	1781	3439	168	1781	2921	587
Grp Volume(v), veh/h	30	0	33	12	0	12	14	104	109	23	191	192
Grp Sat Flow(s),veh/h/ln	1781	0	1686	1840	0	1558	1781	1777	1830	1781	1777	1732
Q Serve(g_s), s	0.5	0.0	0.6	0.2	0.0	0.2	0.2	1.5	1.5	0.4	2.8	2.9
Cycle Q Clear(g_c), s	0.5	0.0	0.6	0.2	0.0	0.2	0.2	1.5	1.5	0.4	2.8	2.9
Prop In Lane	1.00		0.55	0.33		1.00	1.00		0.09	1.00		0.34
Lane Grp Cap(c), veh/h	95	0	90	95	0	80	194	518	534	211	536	522
V/C Ratio(X)	0.32	0.00	0.37	0.13	0.00	0.15	0.07	0.20	0.20	0.11	0.36	0.37
Avail Cap(c_a), veh/h	270	0	255	1617	0	1369	216	1616	1664	270	1670	1627
HCM Platoon Ratio	1.00	1.00	1.00	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	15.0	0.0	15.1	14.9	0.0	15.0	13.2	8.8	8.8	13.0	9.0	9.1
Incr Delay (d2), s/veh	1.4	0.0	1.9	0.2	0.0	0.3	0.1	0.1	0.1	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.2	0.1	0.0	0.1	0.1	0.4	0.4	0.1	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	0.0	16.9	15.2	0.0	15.3	13.3	8.9	8.9	13.1	9.3	9.4
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	63				24				227		406	
Approach Delay, s/veh	16.7				15.2				9.2		9.6	
Approach LOS	B				B				A		A	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	13.6	5.8		7.6	13.9	5.7					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	5.0	30.0	5.0		4.0	31.0	29.0					
Max Q Clear Time (g_c+12, s)	12.4	3.5	2.6		2.2	4.9	2.2					
Green Ext Time (p_c), s	0.0	0.9	0.0		0.0	1.8	0.0					

Intersection Summary

HCM 6th Ctrl Delay 10.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	147	2	4	62	118	194
Future Volume (veh/h)	147	2	4	62	118	194
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	153	0	4	0	122	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	766	402	712		268	
Arrive On Green	0.22	0.00	0.38	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	153	0	4	0	122	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.3	0.0	0.0	0.0	1.2	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.0	1.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	766	402	712		268	
V/C Ratio(X)	0.20	0.00	0.01		0.46	
Avail Cap(c_a), veh/h	1066	560	712		1222	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	7.1	0.0	16.2	0.0
Incr Delay (d2), s/veh	0.1	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
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.0	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	7.1	0.0	17.4	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		153	4	A	122	A
Approach Delay, s/veh		12.0	7.1		17.4	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		11.9		6.8		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+I1), s		3.3		3.2		2.0
Green Ext Time (p_c), s		0.3		0.2		0.0

Intersection Summary

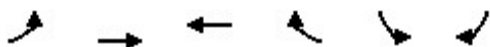
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

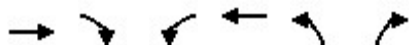
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	9	112	55	0	0	2
Future Vol, veh/h	9	112	55	0	0	2
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	130	64	0	0	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	71	0	-	0	157	41
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1527	-	-	-	819	1021
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	927	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1517	-	-	-	802	1012
Mov Cap-2 Maneuver	-	-	-	-	802	-
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	921	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		8.6		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1517	-	-	-	1012	
HCM Lane V/C Ratio	0.007	-	-	-	0.002	
HCM Control Delay (s)	7.4	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2182	2865	0	0	0
Future Volume (veh/h)	0	2182	2865	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2372	3114	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7592
Grp Volume(v), veh/h	0	2372	3114	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	15.8	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	15.8	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7730	8023
V/C Ratio(X)	0.00	0.92	1.21	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7730	8023
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.8	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	6.9	98.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.9	21.8	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	19.7	111.9	0.0	8.1	8.1
LnGrp LOS	A	B	F	A	A	A
Approach Vol, veh/h		2372	3114	1077	1255	04
Approach Delay, s/veh		19.7	111.9		8.1	
Approach LOS		B	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				17.8	2.0	20.0
Green Ext Time (p_c), s				0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↗	↖	↑↑↑	↖	↗
Traffic Volume (veh/h)	2488	18	63	1167	6	86
Future Volume (veh/h)	2488	18	63	1167	6	86
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2647	19	67	1241	6	91
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4816	1162	110	5251	138	111
Arrive On Green	0.77	0.77	0.06	1.00	0.08	0.08
Sat Flow, veh/h	6537	1516	3456	6537	1781	1427
Grp Volume(v), veh/h	2647	19	67	1241	6	91
Grp Sat Flow(s), veh/h/ln	1570	1516	1728	1570	1781	1427
Q Serve(g_s), s	20.1	0.3	2.2	0.0	0.4	7.4
Cycle Q Clear(g_c), s	20.1	0.3	2.2	0.0	0.4	7.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4816	1162	110	5251	138	111
V/C Ratio(X)	0.55	0.02	0.61	0.24	0.04	0.82
Avail Cap(c_a), veh/h	4816	1162	193	5251	500	400
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	5.6	3.3	54.5	0.0	50.4	53.6
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.1	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.1	1.0	0.0	0.2	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.7	3.3	56.5	0.1	50.4	59.2
LnGrp LOS	A	A	E	A	D	E
Approach Vol, veh/h	2666			1308	97	
Approach Delay, s/veh	5.7			3.0	58.7	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	8.2	95.8		103.9	14.1	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	63.7			74.7	33.1	
Max Q Clear Time (g_c+I), s	22.1			2.0	9.4	
Green Ext Time (p_c), s	0.0	40.5		30.6	0.1	

Intersection Summary

HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK



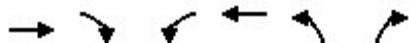
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰	↑	
Traffic Volume (veh/h)	11	2408	0	6	1053	72	0	0	0	5	0	5
Future Volume (veh/h)	11	2408	0	6	1053	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	2535	0	6	1108	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4109	0	60	5120	349	0	34	0	93	0	28
Arrive On Green	0.01	1.00	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	6044	412	0	1870	0	1752	0	1571
Grp Volume(v), veh/h	12	2535	0	6	862	322	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1745	0	1870	0	1752	0	1571
Q Serve(g_s), s	0.8	0.0	0.0	0.4	4.0	4.1	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	4.0	4.1	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.24	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4109	0	60	3991	1479	0	34	0	93	0	28
V/C Ratio(X)	0.61	0.62	0.00	0.10	0.22	0.22	0.00	0.00	0.00	0.05	0.00	0.18
Avail Cap(c_a), veh/h	69	4109	0	69	3991	1479	0	507	0	536	0	426
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.00	0.97	0.97	0.97	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	0.0	0.0	55.3	1.7	1.7	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	8.8	0.6	0.0	0.3	0.1	0.3	0.0	0.0	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 BackOfQ(50%),veh/ln	0.4	0.2	0.0	0.2	0.6	0.7	0.0	0.0	0.0	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.7	0.6	0.0	55.5	1.8	2.0	0.0	0.0	0.0	57.1	0.0	58.2
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	2547			1190			0			10		
Approach Delay, s/veh	0.9			2.1			0.0			57.6		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	66.8			32.0	4.6	66.8		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.8	6.1		0.0				
Green Ext Time (p_c), s	0.0	60.2		0.0	0.0	23.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	2374	2	31	1243	0	19
Future Volume (veh/h)	2374	2	31	1243	0	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	2553	2	33	1337	0	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3453	3	52	3930	0	31
Arrive On Green	0.67	0.67	0.03	0.79	0.00	0.02
Sat Flow, veh/h	5308	4	1781	5149	0	1521
Grp Volume(v), veh/h	1649	906	33	1337	0	21
Grp Sat Flow(s), veh/h/ln	1662	1825	1781	1662	0	1597
Q Serve(g_s), s	16.2	16.3	0.9	3.9	0.0	0.7
Cycle Q Clear(g_c), s	16.2	16.3	0.9	3.9	0.0	0.7
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2231	1225	52	3930	0	32
V/C Ratio(X)	0.74	0.74	0.63	0.34	0.00	0.65
Avail Cap(c_a), veh/h	2246	1233	142	4204	0	576
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.4	5.4	24.1	1.5	0.0	24.4
Incr Delay (d2), s/veh	1.9	3.4	4.6	0.2	0.0	19.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	3.0	0.4	0.1	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.3	8.8	28.6	1.7	0.0	44.3
LnGrp LOS	A	A	C	A	A	D
Approach Vol, veh/h	2555			1370	21	
Approach Delay, s/veh	7.8			2.4	44.3	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.9	38.9		44.7	5.4	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	4.0	33.9		42.3	18.1	
Max Q Clear Time (g_c+I), s	12.9	18.3		5.9	2.7	
Green Ext Time (p_c), s	0.0	15.4		24.9	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			6.1			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	25					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	197	0	0	1465	696
Future Vol, veh/h	0	197	0	0	1465	696
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	219	0	0	1628	773
Major/Minor	Minor2		Major2			
Conflicting Flow All	2025	1211			-	0
Stage 1	2025	-			-	-
Stage 2	0	-			-	-
Critical Hdwy	5.74	7.14			-	-
Critical Hdwy Stg 1	6.64	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	3.82	3.92			-	-
Pot Cap-1 Maneuver	91	~ 150			-	-
Stage 1	55	-			-	-
Stage 2	-	-			-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	89	~ 149			-	-
Mov Cap-2 Maneuver	89	-			-	-
Stage 1	54	-			-	-
Stage 2	-	-			-	-
Approach	EB		SB			
HCM Control Delay, s	299.4		0			
HCM LOS	F					
Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR		
Capacity (veh/h)		- 149	-	-		
HCM Lane V/C Ratio		- 1.469	-	-		
HCM Control Delay (s)		0 299.4	-	-		
HCM Lane LOS		A F	-	-		
HCM 95th %tile Q(veh)		- 14.4	-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2026 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	130	588	122	71	715	316	51	35	27	180	90	130
Future Volume (veh/h)	130	588	122	71	715	316	51	35	27	180	90	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	661	137	80	803	355	57	39	30	202	101	146
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	2872	869	101	2669	809	250	224	176	347	445	387
Arrive On Green	0.19	1.00	1.00	0.11	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	5106	1545	1781	5106	1548	757	896	702	1318	1777	1546
Grp Volume(v), veh/h	146	661	137	80	803	355	59	0	67	202	101	146
Grp Sat Flow(s),veh/h/ln	1781	1702	1545	1781	1702	1548	789	0	1566	1318	1777	1546
Q Serve(g_s), s	9.3	0.0	0.0	5.2	0.0	0.0	5.2	0.0	4.0	16.7	5.3	9.2
Cycle Q Clear(g_c), s	9.3	0.0	0.0	5.2	0.0	0.0	14.4	0.0	4.0	20.7	5.3	9.2
Prop In Lane	1.00		1.00	1.00		1.00	0.97		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	172	2872	869	101	2669	809	258	0	392	347	445	387
V/C Ratio(X)	0.85	0.23	0.16	0.79	0.30	0.44	0.23	0.00	0.17	0.58	0.23	0.38
Avail Cap(c_a), veh/h	326	2872	869	220	2669	809	379	0	559	487	634	552
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.95	0.95	0.95	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	0.0	0.0	51.6	0.0	0.0	42.4	0.0	34.6	42.7	35.2	36.6
Incr Delay (d2), s/veh	4.2	0.2	0.4	5.0	0.3	1.6	0.2	0.0	0.1	4.4	0.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.1	2.3	0.1	0.4	1.5	0.0	1.5	5.9	2.4	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.0	0.2	0.4	56.6	0.3	1.6	42.5	0.0	34.7	47.2	35.9	38.4
LnGrp LOS	D	A	A	E	A	A	D	A	C	D	D	D
Approach Vol, veh/h		944			1238			126			449	
Approach Delay, s/veh		8.1			4.3			38.4			41.8	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	72.5		34.4	15.8	67.8		34.4				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	14.6	* 46		42.1	21.6	38.9		42.1				
Max Q Clear Time (g_c+I1), s	7.2	2.0		22.7	11.3	2.0		16.4				
Green Ext Time (p_c), s	0.0	9.7		4.7	0.1	19.1		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				13.3								
HCM 6th LOS				B								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	435	0	0	571	280	0	0	0	391	0	25
Future Volume (veh/h)	15	435	0	0	571	280	0	0	0	391	0	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	512	0	0	672	0	0	0	0	487	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	2628	0	2	2442		0	2	1	571	300	0
Arrive On Green	0.02	0.74	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3556	1870	0
Grp Volume(v), veh/h	18	512	0	0	672	0	0	0	0	487	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1778	1870	0
Q Serve(g_s), s	1.2	5.2	0.0	0.0	8.6	0.0	0.0	0.0	0.0	15.7	0.0	0.0
Cycle Q Clear(g_c), s	1.2	5.2	0.0	0.0	8.6	0.0	0.0	0.0	0.0	15.7	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	27	2628	0	2	2442		0	2	1	571	300	0
V/C Ratio(X)	0.67	0.19	0.00	0.00	0.28		0.00	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	62	2628	0	62	2442		0	476	403	1115	586	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.79	0.00	0.00
Uniform Delay (d), s/veh	57.8	4.7	0.0	0.0	7.1	0.0	0.0	0.0	0.0	48.2	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	0.0	0.0	2.9	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	4.8	0.0	0.0	7.4	0.0	0.0	0.0	0.0	49.3	0.0	0.0
LnGrp LOS	E	A	A	A	A		A	A	A	D	A	A
Approach Vol, veh/h	530			672			0			487		
Approach Delay, s/veh	7.0			7.4			0.0			49.3		
Approach LOS	A			A						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	93.2		24.8	6.2	87.0		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s		* 27		37.0	4.1	25.8		30.0				
Max Q Clear Time (g_c+I), s		7.2		17.7	3.2	10.6		0.0				
Green Ext Time (p_c), s	0.0	7.2		0.9	0.0	6.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	331	357	176	79	200	104	114	649	82	134	864	105
Future Volume (veh/h)	331	357	176	79	200	104	114	649	82	134	864	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	376	185	83	211	109	120	683	86	141	909	111
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	622	300	105	411	267	175	1420	179	196	1613	704
Arrive On Green	0.21	0.27	0.27	0.06	0.12	0.12	0.05	0.45	0.45	0.06	0.45	0.45
Sat Flow, veh/h	1781	2299	1111	1781	3554	1536	3456	3172	399	3456	3554	1552
Grp Volume(v), veh/h	348	289	272	83	211	109	120	382	387	141	909	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1633	1781	1777	1536	1728	1777	1794	1728	1777	1552
Q Serve(g_s), s	22.3	16.4	16.9	5.3	6.5	4.4	4.0	17.6	17.6	4.7	21.8	2.2
Cycle Q Clear(g_c), s	22.3	16.4	16.9	5.3	6.5	4.4	4.0	17.6	17.6	4.7	21.8	2.2
Prop In Lane	1.00		0.68	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	373	480	442	105	411	267	175	795	803	196	1613	704
V/C Ratio(X)	0.93	0.60	0.62	0.79	0.51	0.41	0.69	0.48	0.48	0.72	0.56	0.16
Avail Cap(c_a), veh/h	393	649	597	183	888	474	286	795	803	214	1613	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	36.9	37.0	53.9	48.2	19.2	54.2	22.6	22.6	53.8	23.3	3.8
Incr Delay (d2), s/veh	27.6	0.5	0.5	4.9	0.4	0.4	1.8	2.1	2.1	8.1	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	7.2	6.8	2.5	2.9	1.8	1.8	7.7	7.8	2.2	9.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.6	37.3	37.6	58.7	48.6	19.6	56.0	24.6	24.6	61.9	24.7	4.3
LnGrp LOS	E	D	D	E	D	B	E	C	C	E	C	A
Approach Vol, veh/h	909				403		889				1161	
Approach Delay, s/veh	50.9				42.8		28.9				27.3	
Approach LOS	D				D		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	57.2	11.2	36.6	10.3	57.9	29.5	18.3				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	2	* 36	11.9	42.4	9.6	32.8	25.6	* 29				
Max Q Clear Time (g_c+I), s	10	19.6	7.3	18.9	6.0	23.8	24.3	8.5				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	2.1	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	262	92	151	194	70	128	101	194	58	85	68
Future Volume (veh/h)	48	262	92	151	194	70	128	101	194	58	85	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	279	98	161	206	74	136	107	206	62	90	72
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	1217	649	236	699	549	169	1061	563	81	885	366
Arrive On Green	0.04	0.34	0.34	0.07	0.37	0.37	0.09	0.30	0.30	0.05	0.25	0.25
Sat Flow, veh/h	1781	3554	1456	3456	1870	1467	1781	3554	1524	1781	3554	1471
Grp Volume(v), veh/h	51	279	98	161	206	74	136	107	206	62	90	72
Grp Sat Flow(s),veh/h/ln	1781	1777	1456	1728	1870	1467	1781	1777	1524	1781	1777	1471
Q Serve(g_s), s	2.7	5.3	3.9	4.3	7.4	3.2	7.1	2.1	9.4	3.3	1.9	3.7
Cycle Q Clear(g_c), s	2.7	5.3	3.9	4.3	7.4	3.2	7.1	2.1	9.4	3.3	1.9	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	66	1217	649	236	699	549	169	1061	563	81	885	366
V/C Ratio(X)	0.77	0.23	0.15	0.68	0.29	0.13	0.80	0.10	0.37	0.77	0.10	0.20
Avail Cap(c_a), veh/h	560	1490	761	1087	784	615	560	1490	747	560	1490	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	22.4	16.2	43.4	21.0	19.7	42.3	24.2	22.1	45.1	27.6	28.3
Incr Delay (d2), s/veh	7.0	0.1	0.1	1.3	0.1	0.1	3.4	0.0	0.4	5.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	1.3	1.9	3.2	1.1	3.3	0.9	3.4	1.6	0.8	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	22.5	16.3	44.7	21.1	19.7	45.7	24.2	22.5	50.7	27.6	28.4
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		428			441			449			224	
Approach Delay, s/veh		24.7			29.5			29.9			34.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.9	38.6	14.4	30.5	8.9	41.6	9.7	35.2				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	6.3	7.3	9.1	5.7	4.7	9.4	5.3	11.4				
Green Ext Time (p_c), s	0.3	2.8	0.2	0.5	0.0	1.0	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			29.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	↕
Traffic Volume (veh/h)	9	0	21	27	3	46	33	323	29	47	260	23
Future Volume (veh/h)	9	0	21	27	3	46	33	323	29	47	260	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	23	30	3	51	36	355	32	52	286	25
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	201	51	292	525	44	493	59	1379	122	79	1438	123
Arrive On Green	0.28	0.00	0.28	0.28	0.28	0.28	0.03	0.29	0.29	0.04	0.30	0.30
Sat Flow, veh/h	276	185	1061	1245	161	1537	1781	4757	420	1781	4775	408
Grp Volume(v), veh/h	33	0	0	33	0	51	36	252	135	52	202	109
Grp Sat Flow(s), veh/h/ln	1522	0	0	1406	0	1537	1781	1702	1773	1781	1702	1779
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.9	0.8	2.1	2.2	1.1	1.7	1.7
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.5	0.0	0.9	0.8	2.1	2.2	1.1	1.7	1.7
Prop In Lane	0.30		0.70	0.91		1.00	1.00		0.24	1.00		0.23
Lane Grp Cap(c), veh/h	543	0	0	569	0	493	59	987	514	79	1025	536
V/C Ratio(X)	0.06	0.00	0.00	0.06	0.00	0.10	0.61	0.26	0.26	0.66	0.20	0.20
Avail Cap(c_a), veh/h	1694	0	0	1658	0	1703	1419	5425	2826	1419	5425	2835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	0.0	10.1	0.0	9.0	18.0	10.3	10.3	17.7	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.2	0.4	3.4	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 BackOfQ(50%), veh/ln	0.2	0.0	0.0	0.2	0.0	0.2	0.3	0.6	0.7	0.5	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.1	0.0	0.0	10.1	0.0	9.0	21.6	10.4	10.6	21.1	9.9	10.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	B
Approach Vol, veh/h		33			84			423			363	
Approach Delay, s/veh		10.1			9.5			11.4			11.5	
Approach LOS		B			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.3			15.3	5.7	16.7		15.3				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.1	4.2		2.6	2.8	3.7		2.9				
Green Ext Time (p_c), s	0.1	3.7		0.1	0.0	2.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay 11.2

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	24	42	49	37	18	184	578	64	29	474	99
Future Volume (veh/h)	15	24	42	49	37	18	184	578	64	29	474	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.89	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	26	46	53	40	20	200	628	70	32	515	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	542	411	69	540	409	244	1461	620	42	891	186
Arrive On Green	0.04	0.29	0.29	0.04	0.29	0.29	0.14	0.41	0.41	0.02	0.31	0.31
Sat Flow, veh/h	1781	1870	1418	1781	1870	1417	1781	3554	1508	1781	2893	603
Grp Volume(v), veh/h	16	26	46	53	40	20	200	628	70	32	315	308
Grp Sat Flow(s),veh/h/ln	1781	1870	1418	1781	1870	1417	1781	1777	1508	1781	1777	1720
Q Serve(g_s), s	0.9	1.0	2.4	2.9	1.5	1.0	10.8	12.5	2.8	1.8	14.7	14.9
Cycle Q Clear(g_c), s	0.9	1.0	2.4	2.9	1.5	1.0	10.8	12.5	2.8	1.8	14.7	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	71	542	411	69	540	409	244	1461	620	42	547	530
V/C Ratio(X)	0.23	0.05	0.11	0.77	0.07	0.05	0.82	0.43	0.11	0.76	0.58	0.58
Avail Cap(c_a), veh/h	541	568	431	541	568	430	541	2159	916	541	1079	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	25.3	25.8	47.1	25.5	25.4	41.4	20.8	18.0	47.9	28.7	28.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	6.7	0.0	0.0	9.3	0.3	0.1	9.9	2.6	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.8	1.4	0.7	0.3	5.3	5.1	1.0	0.9	6.6	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	25.3	25.8	53.8	25.6	25.4	50.7	21.0	18.1	57.8	31.4	31.6
LnGrp LOS	D	C	C	D	C	C	D	C	B	E	C	C
Approach Vol, veh/h	88				113		898				655	
Approach Delay, s/veh	29.4				38.8		27.4				32.8	
Approach LOS	C				D		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	49.3	8.2	33.5	17.9	39.1	8.3	33.4				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	13.8	14.5	4.9	4.4	12.8	16.9	2.9	3.5				
Green Ext Time (p_c), s	0.0	6.7	0.1	0.1	0.8	10.5	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 30.2

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	219	18	164	122	0	0	0	0	223	25	35
Future Volume (veh/h)	0	219	18	164	122	0	0	0	0	223	25	35
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	231	19	173	128	0				254	0	37
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	249	497	218	351	671	0				939	0	633
Arrive On Green	0.00	0.14	0.14	0.20	0.20	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1781	3554	1557	1781	3572	0				3563	0	1562
Grp Volume(v), veh/h	0	231	19	173	128	0				254	0	37
Grp Sat Flow(s), veh/h/ln	1781	1777	1557	1781	1702	0				1781	0	1562
Q Serve(g_s), s	0.0	2.2	0.4	3.1	1.1	0.0				2.1	0.0	0.5
Cycle Q Clear(g_c), s	0.0	2.2	0.4	3.1	1.1	0.0				2.1	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	249	497	218	351	671	0				939	0	633
V/C Ratio(X)	0.00	0.46	0.09	0.49	0.19	0.00				0.27	0.00	0.06
Avail Cap(c_a), veh/h	2944	5874	2573	2944	5627	0				3435	0	1728
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.4	13.6	13.0	12.2	0.0				10.6	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.2	0.2	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 BackOfQ(50%), veh/ln	0.0	0.6	0.1	1.0	0.3	0.0				0.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.6	13.7	14.2	12.3	0.0				10.7	0.0	6.6
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	250			301			291					
Approach Delay, s/veh	14.5			13.4			10.1					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.1			15.8			11.5					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.2			4.1			5.1					
Green Ext Time (p_c), s	0.9			0.5			2.0					

Intersection Summary

HCM 6th Ctrl Delay 12.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	375	0	1	263	262	33	12	150	22	0	218
Future Volume (veh/h)	95	375	0	1	263	262	33	12	150	22	0	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.99		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	408	0	1	286	285	36	13	163	24	0	237
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1544	0	51	549	418	280	18	227	29	0	289
Arrive On Green	0.08	0.43	0.00	0.29	0.29	0.29	0.16	0.16	0.16	0.20	0.00	0.20
Sat Flow, veh/h	1781	3647	0	1	1869	1423	1781	115	1447	146	0	1442
Grp Volume(v), veh/h	103	408	0	287	0	285	36	0	176	261	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1869	0	1423	1781	0	1562	1588	0	0
Q Serve(g_s), s	4.0	5.2	0.0	0.0	0.0	12.6	1.2	0.0	7.6	11.2	0.0	0.0
Cycle Q Clear(g_c), s	4.0	5.2	0.0	9.1	0.0	12.6	1.2	0.0	7.6	11.2	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.93	0.09		0.91
Lane Grp Cap(c), veh/h	138	1544	0	600	0	418	280	0	246	318	0	0
V/C Ratio(X)	0.75	0.26	0.00	0.48	0.00	0.68	0.13	0.00	0.72	0.82	0.00	0.00
Avail Cap(c_a), veh/h	751	2995	0	1624	0	1199	1001	0	878	892	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	32.2	12.9	0.0	21.0	0.0	22.2	25.8	0.0	28.5	27.2	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.0	0.7	0.0	2.4	0.1	0.0	1.5	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.8	0.0	3.6	0.0	4.0	0.5	0.0	2.8	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.5	12.9	0.0	21.7	0.0	24.6	25.9	0.0	30.0	29.2	0.0	0.0
LnGrp LOS	D	B	A	C	A	C	C	A	C	C	A	A
Approach Vol, veh/h	511				572		212				261	
Approach Delay, s/veh	18.7				23.1		29.3				29.2	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	35.3		18.3		10.0	25.3	17.6					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	7.2		13.2		6.0	14.6	9.6					
Green Ext Time (p_c), s	1.6		1.2		0.3	4.5	0.8					

Intersection Summary

HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	465	128	274	340	0	0	0	0	327	186	197
Future Volume (veh/h)	0	465	128	274	340	0	0	0	0	327	186	197
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	489	135	288	358	0				344	196	207
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1912	837	363	2472	0				669	351	289
Arrive On Green	0.00	0.54	0.54	0.21	1.00	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	3647	1555	3456	3647	0				3563	1870	1537
Grp Volume(v), veh/h	0	489	135	288	358	0				344	196	207
Grp Sat Flow(s),veh/h/ln	0	1777	1555	1728	1777	0				1781	1870	1537
Q Serve(g_s), s	0.0	6.2	3.7	6.6	0.0	0.0				7.3	8.0	10.6
Cycle Q Clear(g_c), s	0.0	6.2	3.7	6.6	0.0	0.0				7.3	8.0	10.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1912	837	363	2472	0				669	351	289
V/C Ratio(X)	0.00	0.26	0.16	0.79	0.14	0.00				0.51	0.56	0.72
Avail Cap(c_a), veh/h	0	1912	837	518	2472	0				1361	715	587
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.4	9.8	32.3	0.0	0.0				30.7	30.9	32.0
Incr Delay (d2), s/veh	0.0	0.3	0.4	3.2	0.1	0.0				0.2	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	1.2	2.5	0.0	0.0				3.1	3.6	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.7	10.2	35.5	0.1	0.0				30.9	31.5	33.3
LnGrp LOS	A	B	B	D	A	A				C	C	C
Approach Vol, veh/h		624			646						747	
Approach Delay, s/veh		10.6			15.9						31.7	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.2	50.1		20.7		63.3						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	12.6	25.1		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.6	8.2		12.6		2.0						
Green Ext Time (p_c), s	0.2	3.7		1.7		2.6						

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	300	491	0	0	499	450	116	211	18	0	0	0
Future Volume (veh/h)	300	491	0	0	499	450	116	211	18	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	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			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	326	534	0	0	542	489	126	229	20			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1283	2716	0	0	1189	517	198	399	35			
Arrive On Green	0.74	1.00	0.00	0.00	0.33	0.33	0.12	0.12	0.12			
Sat Flow, veh/h	3456	3647	0	0	3647	1547	1658	3350	291			
Grp Volume(v), veh/h	326	534	0	0	542	489	136	115	124			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1547	1787	1702	1809			
Q Serve(g_s), s	2.5	0.0	0.0	0.0	10.1	25.8	6.1	5.4	5.5			
Cycle Q Clear(g_c), s	2.5	0.0	0.0	0.0	10.1	25.8	6.1	5.4	5.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.93		0.16			
Lane Grp Cap(c), veh/h	1283	2716	0	0	1189	517	213	203	216			
V/C Ratio(X)	0.25	0.20	0.00	0.00	0.46	0.94	0.64	0.57	0.58			
Avail Cap(c_a), veh/h	1283	2716	0	0	1189	517	598	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.1	0.0	0.0	0.0	21.9	27.2	35.3	34.9	35.0			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.3	28.0	1.2	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			
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.0	0.0	4.0	12.6	2.7	2.2	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.2	0.2	0.0	0.0	23.2	55.2	36.4	35.9	35.9			
LnGrp LOS	A	A	A	A	C	E	D	D	D			
Approach Vol, veh/h	860			1031			375					
Approach Delay, s/veh	2.8			38.4			36.1					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	69.1			36.1			33.0			14.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			4.5			27.8			8.1		
Green Ext Time (p_c), s	4.4			0.7			0.1			1.3		

Intersection Summary

HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	22	60	23	1008	14	0	0	0
Future Volume (veh/h)	0	0	0	0	22	60	23	1008	14	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	24	66	25	1108	15			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	86	134	3040	41			
Arrive On Green				0.00	0.07	0.07	0.61	0.61	0.61			
Sat Flow, veh/h				0	441	1212	40	4987	67			
Grp Volume(v), veh/h				0	0	90	420	348	380			
Grp Sat Flow(s),veh/h/ln				0	0	1652	1858	1549	1688			
Q Serve(g_s), s				0.0	0.0	1.9	0.0	3.9	3.9			
Cycle Q Clear(g_c), s				0.0	0.0	1.9	3.9	3.9	3.9			
Prop In Lane				0.00		0.73	0.06		0.04			
Lane Grp Cap(c), veh/h				0	0	117	1242	944	1029			
V/C Ratio(X)				0.00	0.00	0.77	0.34	0.37	0.37			
Avail Cap(c_a), veh/h				0	0	1905	3298	2679	2919			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	15.8	3.4	3.4	3.4			
Incr Delay (d2), s/veh				0.0	0.0	4.0	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.6	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	19.9	3.6	3.8	3.7			
LnGrp LOS				A	A	B	A	A	A			
Approach Vol, veh/h					90			1148				
Approach Delay, s/veh					19.9			3.7				
Approach LOS					B			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		26.7						7.9				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		5.9						3.9				
Green Ext Time (p_c), s		15.2						0.4				
Intersection Summary												
HCM 6th Ctrl Delay				4.9								
HCM 6th LOS				A								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	194	78	314	424	83	193	274	121	53	271	76
Future Volume (veh/h)	98	194	78	314	424	83	193	274	121	53	271	76
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		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	209	84	338	456	89	208	295	130	57	291	82
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	408	342	383	541	106	251	1005	406	73	736	194
Arrive On Green	0.08	0.22	0.22	0.21	0.36	0.36	0.14	0.28	0.28	0.04	0.19	0.19
Sat Flow, veh/h	1781	1870	1570	1781	1519	296	1781	3529	1426	1781	3976	1050
Grp Volume(v), veh/h	105	209	84	338	0	545	208	284	141	57	246	127
Grp Sat Flow(s),veh/h/ln	1781	1870	1570	1781	0	1815	1781	1702	1551	1781	1702	1621
Q Serve(g_s), s	4.6	7.7	3.5	14.5	0.0	21.8	8.9	5.1	5.6	2.5	5.0	5.4
Cycle Q Clear(g_c), s	4.6	7.7	3.5	14.5	0.0	21.8	8.9	5.1	5.6	2.5	5.0	5.4
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.92	1.00		0.65
Lane Grp Cap(c), veh/h	136	408	342	383	0	647	251	969	442	73	630	300
V/C Ratio(X)	0.77	0.51	0.25	0.88	0.00	0.84	0.83	0.29	0.32	0.78	0.39	0.42
Avail Cap(c_a), veh/h	678	950	797	678	0	922	678	2593	1182	678	2593	1235
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	35.7	27.1	25.4	30.0	0.0	23.3	32.9	22.0	22.2	37.4	28.2	28.4
Incr Delay (d2), s/veh	3.5	0.4	0.1	2.7	0.0	5.0	2.7	0.3	0.8	6.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.4	1.3	6.3	0.0	9.8	3.9	2.0	2.0	1.2	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	27.5	25.6	32.7	0.0	28.3	35.6	22.3	22.9	43.8	28.9	30.0
LnGrp LOS	D	C	C	C	A	C	D	C	C	D	C	C
Approach Vol, veh/h	398			883			633			430		
Approach Delay, s/veh	30.2			30.0			26.8			31.2		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	27.7	21.3	22.1	15.5	19.9	10.4	33.0				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.5	7.6	16.5	9.7	10.9	7.4	6.6	23.8				
Green Ext Time (p_c), s	0.1	5.5	0.5	1.0	0.3	4.5	0.1	3.5				

Intersection Summary

HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2026 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	135	282	110	210	0	0	0	0	78	1266	533
Future Volume (veh/h)	0	135	282	110	210	0	0	0	0	78	1266	533
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	138	288	112	214	0				80	1292	544
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	416	353	203	428	0				1105	2182	909
Arrive On Green	0.00	0.22	0.22	0.22	0.22	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1585	578	2007	0				1781	3518	1467
Grp Volume(v), veh/h	0	138	288	156	170	0				80	1250	586
Grp Sat Flow(s),veh/h/ln	0	1870	1585	883	1617	0				1781	1702	1581
Q Serve(g_s), s	0.0	5.1	14.3	9.7	7.6	0.0				1.5	18.2	18.5
Cycle Q Clear(g_c), s	0.0	5.1	14.3	14.9	7.6	0.0				1.5	18.2	18.5
Prop In Lane	0.00		1.00	0.72		0.00				1.00		0.93
Lane Grp Cap(c), veh/h	0	416	353	271	360	0				1105	2111	980
V/C Ratio(X)	0.00	0.33	0.82	0.57	0.47	0.00				0.07	0.59	0.60
Avail Cap(c_a), veh/h	0	680	576	428	587	0				1294	2473	1149
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	26.9	30.5	32.1	27.9	0.0				6.2	9.4	9.5
Incr Delay (d2), s/veh	0.0	0.2	1.8	1.4	0.7	0.0				0.0	0.5	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 BackOfQ(50%),veh/ln	0.0	2.3	5.5	3.1	3.0	0.0				0.5	5.9	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.1	32.3	33.5	28.6	0.0				6.3	9.9	10.6
LnGrp LOS	A	C	C	C	C	A				A	A	B
Approach Vol, veh/h		426			326						1916	
Approach Delay, s/veh		30.6			31.0						9.9	
Approach LOS		C			C						A	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				25.1		57.5		25.1				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				16.3		20.5		16.9				
Green Ext Time (p_c), s				0.9		30.7		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2026 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖		↖	↑↑				
Traffic Volume (veh/h)	115	16	79	0	26	16	301	1040	34	0	0	0
Future Volume (veh/h)	115	16	79	0	26	16	301	1040	34	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	134	19	92	0	30	19	350	1209	40			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	374	42	1144	0	201	128	952	1875	62			
Arrive On Green	0.19	0.19	0.19	0.00	0.19	0.19	0.53	0.53	0.53			
Sat Flow, veh/h	1073	223	1572	0	1068	677	1781	3507	116			
Grp Volume(v), veh/h	153	0	92	0	0	49	350	612	637			
Grp Sat Flow(s),veh/h/ln	1296	0	1572	0	0	1745	1781	1777	1846			
Q Serve(g_s), s	3.6	0.0	0.0	0.0	0.0	0.9	4.5	9.6	9.7			
Cycle Q Clear(g_c), s	4.5	0.0	0.0	0.0	0.0	0.9	4.5	9.6	9.7			
Prop In Lane	0.88		1.00	0.00		0.39	1.00		0.06			
Lane Grp Cap(c), veh/h	416	0	1144	0	0	329	952	950	987			
V/C Ratio(X)	0.37	0.00	0.08	0.00	0.00	0.15	0.37	0.64	0.65			
Avail Cap(c_a), veh/h	1217	0	2045	0	0	1329	1334	1330	1382			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.0	0.0	1.6	0.0	0.0	13.3	5.3	6.5	6.5			
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.1	0.2	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.0	0.0	0.0	0.3	1.0	2.3	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	0.0	1.6	0.0	0.0	13.4	5.5	7.2	7.2			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h	245			49			1599					
Approach Delay, s/veh	10.3			13.4			6.9					
Approach LOS	B			B			A					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	25.6			13.8			13.8					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+I1), s	11.7			6.5			2.9					
Green Ext Time (p_c), s	9.4			1.2			0.1					
Intersection Summary												
HCM 6th Ctrl Delay			7.5									
HCM 6th LOS			A									
Notes												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	34	43	146	10	61	32	496	101	44	649	18
Future Volume (veh/h)	22	34	43	146	10	61	32	496	101	44	649	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	36	45	154	11	64	34	522	106	46	683	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	201	252	446	63	368	54	2032	618	130	2070	57
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.40	0.40	0.04	0.41	0.41
Sat Flow, veh/h	1317	753	941	1310	236	1375	1781	5106	1552	3456	5102	141
Grp Volume(v), veh/h	23	0	81	154	0	75	34	522	106	46	455	247
Grp Sat Flow(s),veh/h/ln	1317	0	1693	1310	0	1612	1781	1702	1552	1728	1702	1839
Q Serve(g_s), s	0.7	0.0	1.8	5.1	0.0	1.8	0.9	3.4	2.2	0.7	4.6	4.6
Cycle Q Clear(g_c), s	2.5	0.0	1.8	7.0	0.0	1.8	0.9	3.4	2.2	0.7	4.6	4.6
Prop In Lane	1.00		0.56	1.00		0.85	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	449	0	453	446	0	431	54	2032	618	130	1381	746
V/C Ratio(X)	0.05	0.00	0.18	0.35	0.00	0.17	0.63	0.26	0.17	0.35	0.33	0.33
Avail Cap(c_a), veh/h	1145	0	1348	1138	0	1283	1064	6097	1854	2063	4065	2196
HCM Platoon Ratio	1.00	1.00	1.00	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	15.1	0.0	14.1	16.8	0.0	14.1	24.1	10.1	9.8	23.6	10.2	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.1	4.6	0.1	0.2	0.6	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 BackOfQ(50%),veh/ln	0.2	0.0	0.6	1.4	0.0	0.6	0.4	1.0	0.6	0.3	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	0.0	14.2	17.0	0.0	14.2	28.6	10.3	10.0	24.2	10.4	10.5
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	104		229			662			748			
Approach Delay, s/veh	14.4		16.1			11.2			11.3			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.3	25.7	18.2		5.9	26.1	18.2					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	12.7	5.4	4.5		2.9	6.6	9.0					
Green Ext Time (p_c), s	0.1	7.9	0.4		0.0	5.1	0.6					

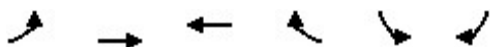
Intersection Summary

HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2499	13	0	1787	0	1
Future Vol, veh/h	2499	13	0	1787	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	2576	13	0	1842	0	1
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	1295
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	131
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	131
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		32.7	
HCM LOS	D					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	131	-	-	-		
HCM Lane V/C Ratio	0.008	-	-	-		
HCM Control Delay (s)	32.7	-	-	-		
HCM Lane LOS	D	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑↑	↑↑↑	↔	↔	↔
Traffic Volume (veh/h)	1054	1619	1814	61	48	59
Future Volume (veh/h)	1054	1619	1814	61	48	59
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1109	1704	1909	0	51	62
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	955	4266	2703		98	88
Arrive On Green	0.28	0.86	0.54	0.00	0.06	0.06
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1109	1704	1909	0	51	62
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	32.6	8.8	33.5	0.0	3.3	4.5
Cycle Q Clear(g_c), s	32.6	8.8	33.5	0.0	3.3	4.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	955	4266	2703		98	88
V/C Ratio(X)	1.16	0.40	0.71		0.52	0.71
Avail Cap(c_a), veh/h	955	4266	2703		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.66	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	1.9	20.0	0.0	54.2	54.8
Incr Delay (d2), s/veh	84.4	0.3	1.0	0.0	1.6	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.5	1.1	12.1	0.0	1.5	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	127.1	2.1	21.1	0.0	55.8	58.7
LnGrp LOS	F	A	C		E	E
Approach Vol, veh/h		2813	1909	A	113	
Approach Delay, s/veh		51.4	21.1		57.4	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.3		11.7	37.0	69.3
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	32.6	* 41
Max Q Clear Time (g_c+I1), s		10.8		6.5	34.6	35.5
Green Ext Time (p_c), s		52.4		0.1	0.0	5.1
Intersection Summary						
HCM 6th Ctrl Delay			39.6			
HCM 6th LOS			D			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2026 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	831	73	53	984	75	85	258	74	75	138	491
Future Volume (veh/h)	265	831	73	53	984	75	85	258	74	75	138	491
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.95	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	270	848	74	54	1004	77	87	263	76	77	141	501
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	1549	135	207	1505	115	108	849	228	97	1065	523
Arrive On Green	0.14	0.47	0.47	0.04	0.15	0.15	0.06	0.21	0.21	0.05	0.21	0.21
Sat Flow, veh/h	1781	3306	288	1781	3340	256	1781	3952	1061	1781	5106	1445
Grp Volume(v), veh/h	270	456	466	54	534	547	87	224	115	77	141	501
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1777	1819	1781	1702	1608	1781	1702	1445
Q Serve(g_s), s	19.6	25.7	25.7	4.1	39.8	39.8	6.8	7.7	8.5	6.0	3.1	29.2
Cycle Q Clear(g_c), s	19.6	25.7	25.7	4.1	39.8	39.8	6.8	7.7	8.5	6.0	3.1	29.2
Prop In Lane	1.00		0.16	1.00		0.14	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	249	833	851	207	801	820	108	731	345	97	1065	523
V/C Ratio(X)	1.08	0.55	0.55	0.26	0.67	0.67	0.80	0.31	0.33	0.79	0.13	0.96
Avail Cap(c_a), veh/h	249	833	851	207	801	820	198	731	345	244	1065	523
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	0.99	0.99	0.99	0.95	0.95	0.95
Uniform Delay (d), s/veh	60.2	26.6	26.6	61.5	49.7	49.7	64.9	46.2	46.5	65.4	45.1	45.2
Incr Delay (d2), s/veh	80.8	2.6	2.5	2.6	3.8	3.7	5.1	0.3	0.6	5.1	0.1	28.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	11.2	11.5	2.0	19.8	20.3	3.2	3.3	3.5	2.8	1.3	20.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	141.0	29.2	29.1	64.1	53.5	53.4	70.1	46.5	47.1	70.5	45.2	73.2
LnGrp LOS	F	C	C	E	D	D	E	D	D	E	D	E
Approach Vol, veh/h	1192			1135			426			719		
Approach Delay, s/veh	54.5			53.9			51.5			67.4		
Approach LOS	D			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.0	35.1	22.1	70.8	12.9	34.2	24.0	68.9				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	15.6	29.2	19.6	56.0				
Max Q Clear Time (g_c+I), s	10.5	10.5	6.1	27.7	8.8	31.2	21.6	41.8				
Green Ext Time (p_c), s	0.1	2.0	0.0	9.4	0.0	0.0	0.0	5.2				

Intersection Summary

HCM 6th Ctrl Delay	56.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	834	99	36	158	0	0	0	0	131	164	957
Future Volume (veh/h)	0	834	99	36	158	0	0	0	0	131	164	957
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	907	108	39	172	0				142	178	1040
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1392	166	64	1787	0				334	1958	640
Arrive On Green	0.00	0.14	0.14	0.04	0.50	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	3290	381	1781	3647	0				812	4759	1555
Grp Volume(v), veh/h	0	504	511	39	172	0				320	0	1040
Grp Sat Flow(s),veh/h/ln	0	1777	1800	1781	1777	0				1830	1870	1555
Q Serve(g_s), s	0.0	37.5	37.5	3.0	3.5	0.0				17.5	0.0	57.6
Cycle Q Clear(g_c), s	0.0	37.5	37.5	3.0	3.5	0.0				17.5	0.0	57.6
Prop In Lane	0.00		0.21	1.00		0.00				0.44		1.00
Lane Grp Cap(c), veh/h	0	774	784	64	1787	0				753	1539	640
V/C Ratio(X)	0.00	0.65	0.65	0.61	0.10	0.00				0.43	0.00	1.63
Avail Cap(c_a), veh/h	0	774	784	122	1787	0				753	1539	640
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	49.9	49.9	66.5	18.2	0.0				29.4	0.0	41.2
Incr Delay (d2), s/veh	0.0	3.8	3.7	3.0	0.1	0.0				1.8	0.0	288.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.7	19.0	1.4	1.5	0.0				8.2	0.0	73.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	53.7	53.6	69.5	18.3	0.0				31.1	0.0	329.7
LnGrp LOS	A	D	D	E	B	A				C	A	F
Approach Vol, veh/h		1015			211						1360	
Approach Delay, s/veh		53.7			27.7						259.5	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	67.6		63.0		77.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	9.6	* 58		57.6		70.4						
Max Q Clear Time (g_c+I), s	15.0	39.5		59.6		5.5						
Green Ext Time (p_c), s	0.0	2.0		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	159.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2026 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	745	264	0	0	130	153	41	102	58	0	0	0
Future Volume (veh/h)	745	264	0	0	130	153	41	102	58	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	801	284	0	0	140	165	44	110	62			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1368	1493	0	0	606	535	77	208	121			
Arrive On Green	0.40	0.80	0.00	0.00	0.34	0.34	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	1870	1568	975	2623	1519			
Grp Volume(v), veh/h	801	284	0	0	140	165	82	72	62			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1568	1822	1777	1519			
Q Serve(g_s), s	14.6	2.9	0.0	0.0	4.5	6.2	3.5	3.1	3.1			
Cycle Q Clear(g_c), s	14.6	2.9	0.0	0.0	4.5	6.2	3.5	3.1	3.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.54		1.00			
Lane Grp Cap(c), veh/h	1368	1493	0	0	606	535	144	141	121			
V/C Ratio(X)	0.59	0.19	0.00	0.00	0.23	0.31	0.57	0.51	0.51			
Avail Cap(c_a), veh/h	1368	1493	0	0	606	535	478	466	399			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	19.0	1.9	0.0	0.0	18.9	19.4	35.5	35.3	35.3			
Incr Delay (d2), s/veh	0.5	0.2	0.0	0.0	0.1	0.1	1.3	1.0	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	0.5	0.0	0.0	1.7	2.1	1.6	1.4	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	2.1	0.0	0.0	18.9	19.5	36.8	36.4	36.6			
LnGrp LOS	B	A	A	A	B	B	D	D	D			
Approach Vol, veh/h	1085				305				216			
Approach Delay, s/veh	14.9				19.3				36.6			
Approach LOS	B				B				D			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	68.8				36.6		32.2		11.2			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	49.2				23.8		* 21		21.0			
Max Q Clear Time (g_c+I1), s	4.9				16.6		8.2		5.5			
Green Ext Time (p_c), s	1.0				1.9		0.9		0.6			

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	179	1442	418	0	0	1640
Future Volume (veh/h)	179	1442	418	0	0	1640
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	183	0	427	0	0	1673
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	215		3177	0	202	4965
Arrive On Green	0.12	0.00	0.64	0.00	0.00	0.79
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	183	0	427	0	0	1673
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.1	0.0	3.7	0.0	0.0	8.4
Cycle Q Clear(g_c), s	11.1	0.0	3.7	0.0	0.0	8.4
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	215		3177	0	202	4965
V/C Ratio(X)	0.85		0.13	0.00	0.00	0.34
Avail Cap(c_a), veh/h	487		3177	0	738	4965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.00	0.98	0.00	0.00	0.92
Uniform Delay (d), s/veh	47.4	0.0	7.9	0.0	0.0	3.3
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.1	0.0	1.2	0.0	0.0	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.3	0.0	7.9	0.0	0.0	3.5
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	183	A	427			1673
Approach Delay, s/veh	50.3		7.9			3.5
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.9	75.0			91.9	18.1
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.6	20.1			70.1	30.1
Max Q Clear Time (g_c+I), s	10.6	5.7			10.4	13.1
Green Ext Time (p_c), s	0.0	3.0			24.9	0.2

Intersection Summary

HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑			↑↑↑			↑↑↑		
Traffic Volume (veh/h)	0	0	0	198	1483	140	127	269	0	0	189	48
Future Volume (veh/h)	0	0	0	198	1483	140	127	269	0	0	189	48
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				204	1529	144	131	277	0	0	195	49
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				288	2303	223	160	1428	0	0	536	123
Arrive On Green				0.17	0.17	0.17	0.18	0.56	0.00	0.00	0.13	0.13
Sat Flow, veh/h				545	4361	422	1781	5274	0	0	4232	933
Grp Volume(v), veh/h				690	579	609	131	277	0	0	160	84
Grp Sat Flow(s),veh/h/ln				1843	1702	1783	1781	1702	0	0	1702	1593
Q Serve(g_s), s				38.8	34.8	34.9	7.8	2.9	0.0	0.0	4.7	5.3
Cycle Q Clear(g_c), s				38.8	34.8	34.9	7.8	2.9	0.0	0.0	4.7	5.3
Prop In Lane				0.30		0.24	1.00		0.00	0.00		0.59
Lane Grp Cap(c), veh/h				973	899	942	160	1428	0	0	449	210
V/C Ratio(X)				0.71	0.64	0.65	0.82	0.19	0.00	0.00	0.36	0.40
Avail Cap(c_a), veh/h				973	899	942	269	1861	0	0	545	255
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.77	0.77	0.77	0.69	0.69	0.00	0.00	0.97	0.97
Uniform Delay (d), s/veh				37.4	35.8	35.9	44.3	18.1	0.0	0.0	43.5	43.8
Incr Delay (d2), s/veh				3.4	2.7	2.6	2.7	0.1	0.0	0.0	0.3	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.0	16.5	17.3	3.2	1.1	0.0	0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.8	38.5	38.5	47.0	18.2	0.0	0.0	43.8	44.6
LnGrp LOS				D	D	D	D	B	A	A	D	D
Approach Vol, veh/h					1877			408			244	
Approach Delay, s/veh					39.4			27.4			44.1	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.8	20.9		64.0	36.7				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				16.6	* 18		58.1	40.1				
Max Q Clear Time (g_c+I1), s				9.8	7.3		40.8	4.9				
Green Ext Time (p_c), s				0.1	0.8		10.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay											37.9	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	203	1786	0	0	0	0	0	164	64
Future Volume (veh/h)	0	0	0	203	1786	0	0	0	0	0	164	64
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				211	1860	0				0	171	67
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				356	3357	0				0	738	257
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				503	4915	0				0	3841	1277
Grp Volume(v), veh/h				774	1297	0				0	157	81
Grp Sat Flow(s),veh/h/ln				1845	1702	0				0	1702	1545
Q Serve(g_s), s				41.1	36.7	0.0				0.0	4.2	4.9
Cycle Q Clear(g_c), s				41.1	36.7	0.0				0.0	4.2	4.9
Prop In Lane				0.27		0.00				0.00		0.83
Lane Grp Cap(c), veh/h				1305	2408	0				0	684	310
V/C Ratio(X)				0.59	0.54	0.00				0.00	0.23	0.26
Avail Cap(c_a), veh/h				1305	2408	0				0	684	310
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.1	26.4	0.0				0.0	36.8	37.1
Incr Delay (d2), s/veh				2.0	0.9	0.0				0.0	0.8	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.9	17.0	0.0				0.0	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.1	27.3	0.0				0.0	37.6	39.1
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2071						238	
Approach Delay, s/veh					28.3						38.1	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.0		83.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				22.1		77.8						
Max Q Clear Time (g_c+I1), s				6.9		43.1						
Green Ext Time (p_c), s				0.3		3.5						
Intersection Summary												
HCM 6th Ctrl Delay				29.3								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1923	131	86	98	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1923	131	86	98	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1982	135	89	101	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3435	233	317	400	0			
Arrive On Green				0.00	0.23	0.23	0.20	0.20	0.00			
Sat Flow, veh/h				0	5044	330	1576	2086	0			
Grp Volume(v), veh/h				0	1381	736	101	89	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1802	1792	1777	0			
Q Serve(g_s), s				0.0	39.5	39.9	5.3	4.6	0.0			
Cycle Q Clear(g_c), s				0.0	39.5	39.9	5.3	4.6	0.0			
Prop In Lane				0.00		0.18	0.88		0.00			
Lane Grp Cap(c), veh/h				0	2398	1270	360	357	0			
V/C Ratio(X)				0.00	0.58	0.58	0.28	0.25	0.00			
Avail Cap(c_a), veh/h				0	2398	1270	360	357	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	27.6	27.8	37.2	37.0	0.0			
Incr Delay (d2), s/veh				0.0	1.0	1.9	1.9	1.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	18.3	19.8	2.5	2.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	28.7	29.7	39.2	38.6	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2117			190				
Approach Delay, s/veh					29.0			38.9				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						83.0		27.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.5		22.1				
Max Q Clear Time (g_c+I1), s						41.9		7.3				
Green Ext Time (p_c), s						22.9		0.9				
Intersection Summary												
HCM 6th Ctrl Delay											29.8	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	224	2092	0	0	0	0	0	145	41
Future Volume (veh/h)	0	0	0	224	2092	0	0	0	0	0	145	41
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				236	2202	0				0	153	43
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				341	3415	0				0	682	294
Arrive On Green				0.24	0.24	0.00				0.00	0.19	0.19
Sat Flow, veh/h				477	4942	0				0	3647	1531
Grp Volume(v), veh/h				914	1524	0				0	153	43
Grp Sat Flow(s),veh/h/ln				1847	1702	0				0	1777	1531
Q Serve(g_s), s				49.7	44.1	0.0				0.0	4.0	2.6
Cycle Q Clear(g_c), s				49.7	44.1	0.0				0.0	4.0	2.6
Prop In Lane				0.26		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1321	2435	0				0	682	294
V/C Ratio(X)				0.69	0.63	0.00				0.00	0.22	0.15
Avail Cap(c_a), veh/h				1321	2435	0				0	682	294
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.9	28.8	0.0				0.0	37.5	37.0
Incr Delay (d2), s/veh				3.0	1.2	0.0				0.0	0.8	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	20.5	0.0				0.0	1.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.9	30.0	0.0				0.0	38.3	38.0
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2438						196	
Approach Delay, s/veh					31.5						38.2	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.0		84.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				21.1		78.7						
Max Q Clear Time (g_c+l1), s				6.0		51.7						
Green Ext Time (p_c), s				0.9		21.6						
Intersection Summary												
HCM 6th Ctrl Delay											32.0	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2204	64	62	41	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2204	64	62	41	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2296	67	65	43	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3683	107	325	325	0			
Arrive On Green				0.00	0.72	0.72	0.18	0.18	0.00			
Sat Flow, veh/h				0	5264	148	1781	1870	0			
Grp Volume(v), veh/h				0	1531	832	65	43	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1840	1781	1777	0			
Q Serve(g_s), s				0.0	24.9	25.2	3.4	2.2	0.0			
Cycle Q Clear(g_c), s				0.0	24.9	25.2	3.4	2.2	0.0			
Prop In Lane				0.00		0.08	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2460	1330	325	325	0			
V/C Ratio(X)				0.00	0.62	0.63	0.20	0.13	0.00			
Avail Cap(c_a), veh/h				0	2460	1330	325	325	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	7.7	7.7	38.1	37.6	0.0			
Incr Delay (d2), s/veh				0.0	1.2	2.2	1.4	0.8	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	8.2	9.3	1.6	1.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	8.9	10.0	39.5	38.5	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					2363			108				
Approach Delay, s/veh					9.3			39.1				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.0		25.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						79.5		20.1				
Max Q Clear Time (g_c+I1), s						27.2		5.4				
Green Ext Time (p_c), s						33.8		0.4				
Intersection Summary												
HCM 6th Ctrl Delay											10.6	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	125	554	2	91	0	0	0	12
Future Vol, veh/h	0	0	0	0	125	554	2	91	0	0	0	12
Conflicting Peds, #/hr	6	0	0	0	0	6	15	0	0	0	0	15
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	130	577	2	95	0	0	0	13
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	80	713	-	-	-	375
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	80	713	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	899	356	0	0	0	623
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	919	434	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	881	354	-	-	-	619
Mov Cap-2 Maneuver				-	-	-	881	354	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	900	431	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		18.8		10.9				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	354	-	-	619								
HCM Lane V/C Ratio	0.268	-	-	0.02								
HCM Control Delay (s)	18.8	-	-	10.9								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  		  		
Traffic Volume (veh/h)	0	0	0	0	0	0	0	399	128	1137	697	0
Future Volume (veh/h)	0	0	0	0	0	0	0	399	128	1137	697	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	420	135	1197	734	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1971	608	2599	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.40	0.40	0.52	0.95	0.00
Sat Flow, veh/h		0					0	5149	1537	5023	1826	0
Grp Volume(v), veh/h		0.0					0	420	135	1197	734	0
Grp Sat Flow(s),veh/h/ln							0	1662	1537	1674	1826	0
Q Serve(g_s), s							0.0	6.1	6.4	16.6	3.5	0.0
Cycle Q Clear(g_c), s							0.0	6.1	6.4	16.6	3.5	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1971	608	2599	1740	0
V/C Ratio(X)							0.00	0.21	0.22	0.46	0.42	0.00
Avail Cap(c_a), veh/h							0	1971	608	2599	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.93	0.93	0.00
Uniform Delay (d), s/veh							0.0	22.0	22.0	16.8	0.2	0.0
Incr Delay (d2), s/veh							0.0	0.1	0.5	0.1	0.7	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	2.3	2.3	5.9	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	22.1	22.5	16.9	0.9	0.0
LnGrp LOS							A	C	C	B	A	A
Approach Vol, veh/h								555			1931	
Approach Delay, s/veh								22.2			10.8	
Approach LOS								C			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	61.3	48.7					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	23.6	* 41					68.8					
Max Q Clear Time (g_c+I1), s	18.6	8.4					5.5					
Green Ext Time (p_c), s	2.3	7.2					7.7					
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	63	1188	73	0	0	0	0	305	210	97	283	0
Future Volume (veh/h)	63	1188	73	0	0	0	0	305	210	97	283	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	65	1225	75				0	314	216	100	292	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	153	3069	944				0	617	274	130	1502	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.15	0.59	0.00
Sat Flow, veh/h	250	5012	1542				0	3572	1513	1781	5274	0
Grp Volume(v), veh/h	484	806	75				0	314	216	100	292	0
Grp Sat Flow(s),veh/h/ln	1858	1702	1542				0	1702	1513	1781	1702	0
Q Serve(g_s), s	25.0	22.6	4.3				0.0	9.2	15.0	5.9	2.9	0.0
Cycle Q Clear(g_c), s	25.0	22.6	4.3				0.0	9.2	15.0	5.9	2.9	0.0
Prop In Lane	0.13		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1137	2084	944				0	617	274	130	1502	0
V/C Ratio(X)	0.43	0.39	0.08				0.00	0.51	0.79	0.77	0.19	0.00
Avail Cap(c_a), veh/h	1137	2084	944				0	901	400	350	2534	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	27.0	26.0	18.7				0.0	40.6	43.0	46.1	16.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0				0.0	0.7	6.9	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	2.4	10.3	1.5				0.0	3.9	6.0	2.6	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	26.1	18.8				0.0	41.4	49.9	49.3	16.6	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1365						530			392		
Approach Delay, s/veh	26.0						44.9			25.0		
Approach LOS	C						D			C		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	72.2			37.8			12.4		25.3			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	45.1			54.6			21.6		* 29			
Max Q Clear Time (g_c+I1), s	27.0			4.9			7.9		17.0			
Green Ext Time (p_c), s	11.7			1.6			0.1		2.9			

Intersection Summary

HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1498	49	0	0	0	0	0	0	147	239	0
Future Volume (veh/h)	0	1498	49	0	0	0	0	0	0	147	239	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1544	51							152	246	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3047	101							552	1055	0
Arrive On Green	0.00	0.20	0.20							0.10	0.10	0.00
Sat Flow, veh/h	0	5239	167							1781	3572	0
Grp Volume(v), veh/h	0	1036	559							152	246	0
Grp Sat Flow(s),veh/h/ln	0	1702	1834							1781	1702	0
Q Serve(g_s), s	0.0	29.9	29.9							8.7	7.3	0.0
Cycle Q Clear(g_c), s	0.0	29.9	29.9							8.7	7.3	0.0
Prop In Lane	0.00		0.09							1.00		0.00
Lane Grp Cap(c), veh/h	0	2046	1102							552	1055	0
V/C Ratio(X)	0.00	0.51	0.51							0.28	0.23	0.00
Avail Cap(c_a), veh/h	0	2046	1102							552	1055	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	29.6	29.6							38.0	37.3	0.0
Incr Delay (d2), s/veh	0.0	0.9	1.7							1.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.8	15.1							4.3	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.5	31.2							39.2	37.9	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1595									398	
Approach Delay, s/veh		30.7									38.4	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		71.0		39.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		66.1		34.1								
Max Q Clear Time (g_c+l1), s		31.9		10.7								
Green Ext Time (p_c), s		5.0		1.0								
Intersection Summary												
HCM 6th Ctrl Delay			32.3									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↑						↑↑					
Traffic Volume (veh/h)	73	1860	0	0	0	0	0	103	222	0	0	0
Future Volume (veh/h)	73	1860	0	0	0	0	0	103	222	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.92			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	75	1918	0				0	106	229			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	107	2913	0				0	599	494			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	187	5247	0				0	1870	1465			
Grp Volume(v), veh/h	748	1245	0				0	106	229			
Grp Sat Flow(s),veh/h/ln	1861	1702	0				0	1777	1465			
Q Serve(g_s), s	41.3	37.1	0.0				0.0	4.6	13.5			
Cycle Q Clear(g_c), s	41.3	37.1	0.0				0.0	4.6	13.5			
Prop In Lane	0.10		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1068	1953	0				0	599	494			
V/C Ratio(X)	0.70	0.64	0.00				0.00	0.18	0.46			
Avail Cap(c_a), veh/h	1068	1953	0				0	599	494			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	35.8	34.0	0.0				0.0	25.7	28.6			
Incr Delay (d2), s/veh	3.8	1.6	0.0				0.0	0.6	3.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	21.7	17.3	0.0				0.0	2.1	5.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	35.6	0.0				0.0	26.3	31.7			
LnGrp LOS	D	D	A				A	C	C			
Approach Vol, veh/h												
1993												
Approach Delay, s/veh												
37.1												
Approach LOS												
D												
Timer - Assigned Phs												
2												
Phs Duration (G+Y+Rc), s												
68.0												
Change Period (Y+Rc), s												
4.9												
Max Green Setting (Gmax), s												
63.1												
Max Q Clear Time (g_c+I1), s												
43.3												
Green Ext Time (p_c), s												
14.2												
Intersection Summary												
HCM 6th Ctrl Delay												
36.1												
HCM 6th LOS												
D												

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	2224	85	0	0	0	0	0	0	150	235	0
Future Volume (veh/h)	0	2224	85	0	0	0	0	0	0	150	235	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2269	87							153	240	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3352	128							439	875	0
Arrive On Green	0.00	0.22	0.22							0.08	0.08	0.00
Sat Flow, veh/h	0	5212	192							1781	3647	0
Grp Volume(v), veh/h	0	1528	828							153	240	0
Grp Sat Flow(s),veh/h/ln	0	1702	1832							1781	1777	0
Q Serve(g_s), s	0.0	45.2	45.6							8.9	7.0	0.0
Cycle Q Clear(g_c), s	0.0	45.2	45.6							8.9	7.0	0.0
Prop In Lane	0.00		0.11							1.00		0.00
Lane Grp Cap(c), veh/h	0	2262	1217							439	875	0
V/C Ratio(X)	0.00	0.68	0.68							0.35	0.27	0.00
Avail Cap(c_a), veh/h	0	2262	1217							439	875	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	32.1	32.2							42.2	41.3	0.0
Incr Delay (d2), s/veh	0.0	1.6	3.1							2.2	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	21.0	23.3							4.5	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.7	35.3							44.4	42.1	0.0
LnGrp LOS	A	C	D							D	D	A
Approach Vol, veh/h		2356									393	
Approach Delay, s/veh		34.3									43.0	
Approach LOS		C									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		78.0	32.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		73.1	27.1									
Max Q Clear Time (g_c+l1), s		47.6	10.9									
Green Ext Time (p_c), s		20.0	1.8									
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2026 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	63	2069	0	0	0	0	0	55	46	0	0	0
Future Volume (veh/h)	63	2069	0	0	0	0	0	55	46	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	66	2178	0				0	58	48			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	102	3590	0				0	408	303			
Arrive On Green	0.23	0.23	0.00				0.00	0.21	0.21			
Sat Flow, veh/h	146	5290	0				0	2036	1445			
Grp Volume(v), veh/h	843	1401	0				0	53	53			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1610			
Q Serve(g_s), s	45.0	40.3	0.0				0.0	2.6	3.0			
Cycle Q Clear(g_c), s	45.0	40.3	0.0				0.0	2.6	3.0			
Prop In Lane	0.08		0.00				0.00		0.90			
Lane Grp Cap(c), veh/h	1306	2386	0				0	373	338			
V/C Ratio(X)	0.65	0.59	0.00				0.00	0.14	0.16			
Avail Cap(c_a), veh/h	1306	2386	0				0	373	338			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	29.9	28.1	0.0				0.0	35.4	35.5			
Incr Delay (d2), s/veh	2.5	1.1	0.0				0.0	0.8	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	23.2	18.6	0.0				0.0	1.2	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	29.2	0.0				0.0	36.2	36.5			
LnGrp LOS	C	C	A				A	D	D			
Approach Vol, veh/h	2244					106						
Approach Delay, s/veh	30.4					36.3						
Approach LOS	C					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	82.0					28.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	77.1					23.1						
Max Q Clear Time (g_c+I1), s	47.0					5.0						
Green Ext Time (p_c), s	21.7					0.5						
Intersection Summary												
HCM 6th Ctrl Delay			30.7									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	33	755	739	102	99	180
Future Volume (veh/h)	33	755	739	102	99	180
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	35	812	795	110	106	194
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	44	3828	3118	428	488	224
Arrive On Green	0.02	0.77	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	4582	607	3456	1585
Grp Volume(v), veh/h	35	812	597	308	106	194
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1701	1728	1585
Q Serve(g_s), s	2.3	5.3	0.0	0.0	3.2	14.1
Cycle Q Clear(g_c), s	2.3	5.3	0.0	0.0	3.2	14.1
Prop In Lane	1.00			0.36	1.00	1.00
Lane Grp Cap(c), veh/h	44	3828	2345	1201	488	224
V/C Ratio(X)	0.79	0.21	0.25	0.26	0.22	0.87
Avail Cap(c_a), veh/h	175	3828	2345	1201	1262	579
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	57.2	3.8	0.0	0.0	44.9	49.6
Incr Delay (d2), s/veh	10.4	0.1	0.3	0.5	0.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	0.1	0.2	1.4	12.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.6	3.9	0.3	0.5	45.0	53.5
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		847	905		300	
Approach Delay, s/veh		6.5	0.3		50.5	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.4		21.6	7.3	89.1
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 64		43.1	11.6	48.2
Max Q Clear Time (g_c+I1), s		7.3		16.1	4.3	2.0
Green Ext Time (p_c), s		17.1		0.5	0.0	16.6

Intersection Summary

HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	105	861	26	29	871	17	13	0	19	9	0	9
Future Volume (veh/h)	105	861	26	29	871	17	13	0	19	9	0	9
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		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	108	888	27	30	898	0	13	0	20	9	0	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	704	3464	105	60	1618		40	0	31	268	0	117
Arrive On Green	0.79	1.00	1.00	0.03	0.32	0.00	0.02	0.00	0.02	0.08	0.00	0.08
Sat Flow, veh/h	1781	4967	151	1781	4985	1585	1781	0	1403	3456	0	1505
Grp Volume(v), veh/h	108	594	321	30	898	0	13	0	20	9	0	9
Grp Sat Flow(s), veh/h/ln	1781	1662	1794	1781	1662	1585	1781	0	1403	1728	0	1505
Q Serve(g_s), s	1.7	0.0	0.0	2.0	17.5	0.0	0.8	0.0	1.7	0.3	0.0	0.7
Cycle Q Clear(g_c), s	1.7	0.0	0.0	2.0	17.5	0.0	0.8	0.0	1.7	0.3	0.0	0.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	704	2318	1252	60	1618		40	0	31	268	0	117
V/C Ratio(X)	0.15	0.26	0.26	0.50	0.56		0.33	0.00	0.64	0.03	0.00	0.08
Avail Cap(c_a), veh/h	704	2318	1252	130	1618		92	0	73	996	0	434
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.7	0.0	0.0	56.0	32.8	0.0	56.8	0.0	57.2	50.3	0.0	50.5
Incr Delay (d2), s/veh	0.0	0.3	0.5	2.3	1.4	0.0	1.7	0.0	7.7	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 BackOfQ(50%), veh/ln	0.6	0.1	0.2	0.9	7.0	0.0	0.4	0.0	0.7	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.7	0.3	0.5	58.3	34.2	0.0	58.5	0.0	64.9	50.4	0.0	50.6
LnGrp LOS	A	A	A	E	C		E	A	E	D	A	D
Approach Vol, veh/h	1023			928			33			18		
Approach Delay, s/veh	1.1			35.0			62.4			50.5		
Approach LOS	A			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.0			14.1	52.3	44.1		7.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	49.4			34.0	19.6	* 38		6.1				
Max Q Clear Time (g_c+14), s	2.0			2.7	3.7	19.5		3.7				
Green Ext Time (p_c), s	0.0	13.4		0.0	0.1	9.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	824	98	222	1205	0	103	39	182	0	26	152
Future Volume (veh/h)	236	824	98	222	1205	0	103	39	182	0	26	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	262	916	109	247	1339	0	114	43	0	0	29	169
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	775	3064	1043	308	1634	0	204	110		0	128	181
Arrive On Green	0.44	0.61	0.61	0.09	0.26	0.00	0.06	0.06	0.00	0.00	0.07	0.07
Sat Flow, veh/h	1781	4985	1544	3456	6537	0	3456	1870	1585	0	1870	2631
Grp Volume(v), veh/h	262	916	109	247	1339	0	114	43	0	0	29	169
Grp Sat Flow(s), veh/h/ln	1781	1662	1544	1728	1570	0	1728	1870	1585	0	1870	1316
Q Serve(g_s), s	11.5	10.2	2.9	8.3	23.7	0.0	3.8	2.6	0.0	0.0	1.7	7.5
Cycle Q Clear(g_c), s	11.5	10.2	2.9	8.3	23.7	0.0	3.8	2.6	0.0	0.0	1.7	7.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	775	3064	1043	308	1634	0	204	110		0	128	181
V/C Ratio(X)	0.34	0.30	0.10	0.80	0.82	0.00	0.56	0.39		0.00	0.23	0.94
Avail Cap(c_a), veh/h	775	3064	1043	486	1634	0	1054	571		0	128	181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.1	10.7	6.8	52.7	41.0	0.0	54.0	53.5	0.0	0.0	52.0	54.7
Incr Delay (d2), s/veh	0.1	0.3	0.2	0.2	0.4	0.0	0.9	0.8	0.0	0.0	0.9	48.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.6	3.5	1.1	3.5	8.8	0.0	1.7	1.2	0.0	0.0	0.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.2	11.0	7.0	52.9	41.5	0.0	54.9	54.3	0.0	0.0	52.9	103.3
LnGrp LOS	C	B	A	D	D	A	D	D		A	D	F
Approach Vol, veh/h	1287			1586			157			198		
Approach Delay, s/veh	12.9			43.3			54.8			95.9		
Approach LOS	B			D			D			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	78.2		13.0	57.0	36.1		11.9				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	16.6	37.4		8.1	23.6	* 31		36.0				
Max Q Clear Time (g_c+110), s	11.0	12.2		9.5	13.5	25.7		5.8				
Green Ext Time (p_c), s	0.2	12.2		0.0	0.3	4.5		0.3				

Intersection Summary

HCM 6th Ctrl Delay 35.0

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	0	27	7	8	23	16	249	10	27	294	48
Future Volume (veh/h)	60	0	27	7	8	23	16	249	10	27	294	48
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		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	24	28	7	15	20	17	262	11	28	309	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	56	65	23	48	61	201	1038	43	207	918	149
Arrive On Green	0.07	0.07	0.07	0.04	0.04	0.04	0.11	0.30	0.30	0.12	0.30	0.30
Sat Flow, veh/h	1781	784	914	586	1255	1573	1781	3468	145	1781	3034	493
Grp Volume(v), veh/h	46	0	52	22	0	20	17	134	139	28	179	181
Grp Sat Flow(s),veh/h/ln	1781	0	1698	1841	0	1573	1781	1777	1836	1781	1777	1750
Q Serve(g_s), s	0.8	0.0	1.0	0.4	0.0	0.4	0.3	1.9	1.9	0.5	2.6	2.7
Cycle Q Clear(g_c), s	0.8	0.0	1.0	0.4	0.0	0.4	0.3	1.9	1.9	0.5	2.6	2.7
Prop In Lane	1.00		0.54	0.32		1.00	1.00		0.08	1.00		0.28
Lane Grp Cap(c), veh/h	127	0	121	71	0	61	201	532	550	207	538	530
V/C Ratio(X)	0.36	0.00	0.43	0.31	0.00	0.33	0.08	0.25	0.25	0.14	0.33	0.34
Avail Cap(c_a), veh/h	264	0	252	1584	0	1354	211	1582	1634	264	1634	1610
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	15.0	15.8	0.0	15.8	13.4	8.9	9.0	13.4	9.1	9.1
Incr Delay (d2), s/veh	1.3	0.0	1.8	0.9	0.0	1.2	0.1	0.2	0.2	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.4	0.2	0.0	0.1	0.1	0.5	0.5	0.2	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	16.8	16.7	0.0	16.9	13.5	9.1	9.1	13.5	9.4	9.4
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	98			42			290			388		
Approach Delay, s/veh	16.5			16.8			9.4			9.7		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	14.1	6.4		7.8	14.2	5.3					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	5.0	30.0	5.0		4.0	31.0	29.0					
Max Q Clear Time (g_c+I), s	12.5	3.9	3.0		2.3	4.7	2.4					
Green Ext Time (p_c), s	0.0	1.2	0.0		0.0	1.7	0.1					

Intersection Summary

HCM 6th Ctrl Delay 10.8

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	185	10	10	88	132	196
Future Volume (veh/h)	185	10	10	88	132	196
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	0	11	0	145	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	835	439	688		285	
Arrive On Green	0.23	0.00	0.37	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	211	0	11	0	145	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.8	0.0	0.1	0.0	1.5	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.1	0.0	1.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	835	439	688		285	
V/C Ratio(X)	0.25	0.00	0.02		0.51	
Avail Cap(c_a), veh/h	1030	541	688		1180	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.9	0.0	7.7	0.0	16.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	7.7	0.0	18.1	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		211	11	A	145	A
Approach Delay, s/veh		12.0	7.7		18.1	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.9		7.1		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+l1), s		3.8		3.5		2.1
Green Ext Time (p_c), s		0.4		0.3		0.0

Intersection Summary

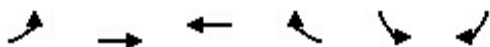
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

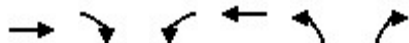
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	13	133	79	0	2	2
Future Vol, veh/h	13	133	79	0	2	2
Conflicting Peds, #/hr	6	0	0	6	0	1
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	156	93	0	2	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	99	0	-	0	207	54
Stage 1	-	-	-	-	99	-
Stage 2	-	-	-	-	108	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1492	-	-	-	762	1002
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	904	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1483	-	-	-	744	995
Mov Cap-2 Maneuver	-	-	-	-	744	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	899	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.3		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1483	-	-	-	851	
HCM Lane V/C Ratio	0.01	-	-	-	0.006	
HCM Control Delay (s)	7.5	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2400	2532	0	0	0
Future Volume (veh/h)	0	2400	2532	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2609	2752	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	9374	9212
Grp Volume(v), veh/h	0	2609	2752	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7732	7687
V/C Ratio(X)	0.00	1.01	1.07	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7732	7687
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	21.2	39.7	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.0	11.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	34.7	53.2	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		2609	2752	1077	1255	504
Approach Delay, s/veh		34.7	53.2		8.1	
Approach LOS		C	D		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	2639	22	56	748	17	59
Future Volume (veh/h)	2639	22	56	748	17	59
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	2721	23	58	771	18	61
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4974	1187	100	5389	99	79
Arrive On Green	0.79	0.79	0.06	1.00	0.06	0.06
Sat Flow, veh/h	6537	1498	3456	6537	1781	1427
Grp Volume(v), veh/h	2721	23	58	771	18	61
Grp Sat Flow(s), veh/h/ln	1570	1498	1728	1570	1781	1427
Q Serve(g_s), s	18.8	0.4	1.9	0.0	1.1	5.0
Cycle Q Clear(g_c), s	18.8	0.4	1.9	0.0	1.1	5.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4974	1187	100	5389	99	79
V/C Ratio(X)	0.55	0.02	0.58	0.14	0.18	0.77
Avail Cap(c_a), veh/h	4974	1187	193	5389	485	388
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.5	2.6	54.9	0.0	53.2	55.0
Incr Delay (d2), s/veh	0.0	0.0	2.0	0.1	0.3	5.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.9	0.1	0.8	0.0	0.5	1.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	4.5	2.6	56.9	0.1	53.5	60.8
LnGrp LOS	A	A	E	A	D	E
Approach Vol, veh/h	2744			829	79	
Approach Delay, s/veh	4.5			4.0	59.1	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	7.8	98.7		106.5	11.5	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	64.6	64.7		75.7	32.1	
Max Q Clear Time (g_c+I), s	13.9	20.8		2.0	7.0	
Green Ext Time (p_c), s	0.0	42.9		14.9	0.1	
Intersection Summary						
HCM 6th Ctrl Delay			5.6			
HCM 6th LOS			A			

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK



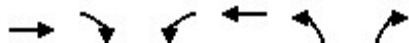
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑	↗		↖ ↑↑↑	↗			↖		↗	↖	
Traffic Volume (veh/h)	15	2508	1	8	371	99	1	0	1	5	0	5
Future Volume (veh/h)	15	2508	1	8	371	99	1	0	1	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	2612	1	8	386	103	1	0	1	5	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	25	4151	2	60	4167	1034	62	11	28	111	0	55
Arrive On Green	0.02	1.00	1.00	0.03	0.83	0.83	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1781	5147	2	1781	5041	1251	463	308	771	1381	0	1545
Grp Volume(v), veh/h	16	1686	927	8	359	130	2	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	1825	1781	1570	1582	1542	0	0	1381	0	1545
Q Serve(g_s), s	1.1	0.0	0.0	0.5	1.7	1.8	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.5	1.7	1.8	0.1	0.0	0.0	0.4	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.79	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	25	2680	1472	60	3894	1307	101	0	0	111	0	55
V/C Ratio(X)	0.65	0.63	0.63	0.13	0.09	0.10	0.02	0.00	0.00	0.05	0.00	0.09
Avail Cap(c_a), veh/h	85	2680	1472	69	3894	1307	444	0	0	436	0	419
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.6	0.0	0.0	55.3	1.9	1.9	54.9	0.0	0.0	55.0	0.0	55.0
Incr Delay (d2), s/veh	8.3	0.9	1.7	0.4	0.0	0.2	0.0	0.0	0.0	0.1	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 BackOfQ(50%),veh/ln	0.5	0.3	0.7	0.2	0.3	0.4	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.0	0.9	1.7	55.7	2.0	2.1	54.9	0.0	0.0	55.1	0.0	55.3
LnGrp LOS	E	A	A	E	A	A	D	A	A	E	A	E
Approach Vol, veh/h	2629			497			2			10		
Approach Delay, s/veh	1.6			2.9			54.9			55.2		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	100.5			9.1	6.0	102.8		9.1				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	66.8			32.0	5.6	65.8		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	3.1	3.8		2.1				
Green Ext Time (p_c), s	0.0	60.5		0.0	0.0	7.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	2.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	2493	11	27	568	0	28
Future Volume (veh/h)	2493	11	27	568	0	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.92	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	2570	11	28	586	0	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3417	15	46	3893	0	42
Arrive On Green	0.67	0.67	0.03	0.78	0.00	0.03
Sat Flow, veh/h	5285	22	1781	5149	0	1540
Grp Volume(v), veh/h	1667	914	28	586	0	30
Grp Sat Flow(s), veh/h/ln	1662	1820	1781	1662	0	1593
Q Serve(g_s), s	16.8	16.8	0.8	1.5	0.0	0.9
Cycle Q Clear(g_c), s	16.8	16.8	0.8	1.5	0.0	0.9
Prop In Lane		0.01	1.00		0.00	0.97
Lane Grp Cap(c), veh/h	2218	1214	46	3893	0	43
V/C Ratio(X)	0.75	0.75	0.61	0.15	0.00	0.69
Avail Cap(c_a), veh/h	2230	1221	149	4202	0	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	5.6	24.1	1.4	0.0	24.1
Incr Delay (d2), s/veh	2.0	3.7	4.8	0.1	0.0	17.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.2	0.3	0.0	0.0	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.6	9.3	28.9	1.4	0.0	41.9
LnGrp LOS	A	A	C	A	A	D
Approach Vol, veh/h	2581			614	30	
Approach Delay, s/veh	8.2			2.7	41.9	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	5.7	38.6		44.3	5.8	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	4.2	33.6		42.2	18.2	
Max Q Clear Time (g_c+I), s	12.8	18.8		3.5	2.9	
Green Ext Time (p_c), s	0.0	14.6		10.3	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			7.5			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	42.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	291	0	0	1258	668
Future Vol, veh/h	0	291	0	0	1258	668
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	310	0	0	1338	711

Major/Minor	Minor2		Major2	
Conflicting Flow All	1699	1030	-	0
Stage 1	1699	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	135	~ 198	-	-
Stage 1	89	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	134	~ 197	-	-
Mov Cap-2 Maneuver	134	-	-	-
Stage 1	89	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s\$ 323.5		0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	197	-	-
HCM Lane V/C Ratio	-	1.571	-	-
HCM Control Delay (s)	0\$ 323.5	-	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	19.9	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2026 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	99	469	46	55	504	204	40	40	31	165	41	149
Future Volume (veh/h)	99	469	46	55	504	204	40	40	31	165	41	149
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	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	479	47	56	514	208	41	41	32	168	42	152
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	2171	658	72	2009	610	364	390	328	544	681	602
Arrive On Green	0.02	0.14	0.14	0.04	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	5106	1548	1781	5106	1550	791	1017	854	1317	1777	1571
Grp Volume(v), veh/h	101	479	47	56	514	208	56	0	58	168	42	152
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1550	1123	0	1539	1317	1777	1571
Q Serve(g_s), s	5.8	8.5	2.7	3.2	6.9	9.6	2.0	0.0	2.4	9.6	1.5	6.7
Cycle Q Clear(g_c), s	5.8	8.5	2.7	3.2	6.9	9.6	8.7	0.0	2.4	12.0	1.5	6.7
Prop In Lane	1.00		1.00	1.00		1.00	0.73		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	129	2171	658	72	2009	610	492	0	590	544	681	602
V/C Ratio(X)	0.79	0.22	0.07	0.78	0.26	0.34	0.11	0.00	0.10	0.31	0.06	0.25
Avail Cap(c_a), veh/h	272	2171	658	185	2009	610	492	0	590	544	681	602
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	28.9	26.4	48.5	20.9	21.7	22.7	0.0	20.1	24.0	19.9	21.5
Incr Delay (d2), s/veh	3.8	0.2	0.2	6.3	0.3	1.5	0.5	0.0	0.3	0.9	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.6	1.0	1.5	2.6	3.5	1.0	0.0	0.9	3.1	0.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	29.1	26.6	54.7	21.2	23.1	23.1	0.0	20.5	24.9	20.0	22.1
LnGrp LOS	D	C	C	D	C	C	C	A	C	C	B	C
Approach Vol, veh/h		627			778			114			362	
Approach Delay, s/veh		32.7			24.1			21.8			23.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	49.5		44.0	11.8	46.2		44.0				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	10.6	* 37		39.1	15.6	31.9		39.1				
Max Q Clear Time (g_c+I1), s	5.2	10.5		14.0	7.8	11.6		10.7				
Green Ext Time (p_c), s	0.0	5.5		4.2	0.1	8.4		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			26.7									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	362	0	0	451	255	0	0	0	244	0	36
Future Volume (veh/h)	24	362	0	0	451	255	0	0	0	244	0	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	398	0	0	496	0	0	0	0	305	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	2683	0	2	2458		0	2	2	454	242	0
Arrive On Green	0.02	0.76	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3513	1870	0
Grp Volume(v), veh/h	26	398	0	0	496	0	0	0	0	305	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1756	1870	0
Q Serve(g_s), s	1.5	3.2	0.0	0.0	11.5	0.0	0.0	0.0	0.0	8.4	0.0	0.0
Cycle Q Clear(g_c), s	1.5	3.2	0.0	0.0	11.5	0.0	0.0	0.0	0.0	8.4	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	36	2683	0	2	2458		0	2	2	454	242	0
V/C Ratio(X)	0.71	0.15	0.00	0.00	0.20		0.00	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	176	2683	0	176	2458		0	182	154	1278	680	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.79	0.00	0.00
Uniform Delay (d), s/veh	49.7	3.4	0.0	0.0	16.6	0.0	0.0	0.0	0.0	42.4	0.0	0.0
Incr Delay (d2), s/veh	9.2	0.1	0.0	0.0	0.2	0.0	0.0	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 BackOfQ(50%),veh/ln	0.7	0.8	0.0	0.0	5.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	3.6	0.0	0.0	16.8	0.0	0.0	0.0	0.0	42.9	0.0	0.0
LnGrp LOS	E	A	A	A	B		A	A	A	D	A	A
Approach Vol, veh/h	424			496			0			305		
Approach Delay, s/veh	7.0			16.8			0.0			42.9		
Approach LOS	A			B						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	82.9		19.1	6.5	76.4		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	10.1	* 25		37.1	10.1	23.8		9.9				
Max Q Clear Time (g_c+I1), s	0.0	5.2		10.4	3.5	13.5		0.0				
Green Ext Time (p_c), s	0.0	5.5		0.6	0.0	3.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	248	265	152	87	234	136	172	717	90	150	792	109
Future Volume (veh/h)	248	265	152	87	234	136	172	717	90	150	792	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	258	276	158	91	244	142	179	747	94	156	825	114
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	285	481	266	114	430	282	237	1546	194	212	1706	744
Arrive On Green	0.16	0.22	0.22	0.06	0.12	0.12	0.07	0.49	0.49	0.06	0.48	0.48
Sat Flow, veh/h	1781	2179	1203	1781	3554	1530	3456	3172	399	3456	3554	1551
Grp Volume(v), veh/h	258	223	211	91	244	142	179	418	423	156	825	114
Grp Sat Flow(s),veh/h/ln	1781	1777	1606	1781	1777	1530	1728	1777	1794	1728	1777	1551
Q Serve(g_s), s	16.5	13.0	13.7	5.8	7.5	6.3	5.9	18.3	18.3	5.1	18.2	2.5
Cycle Q Clear(g_c), s	16.5	13.0	13.7	5.8	7.5	6.3	5.9	18.3	18.3	5.1	18.2	2.5
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	285	393	355	114	430	282	237	866	874	212	1706	744
V/C Ratio(X)	0.91	0.57	0.59	0.80	0.57	0.50	0.76	0.48	0.48	0.74	0.48	0.15
Avail Cap(c_a), veh/h	316	564	509	192	888	480	435	866	874	238	1706	744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	40.3	40.5	53.5	48.1	20.8	53.1	19.9	19.9	53.5	20.4	4.6
Incr Delay (d2), s/veh	25.3	0.5	0.6	4.7	0.4	0.5	1.9	1.9	1.9	8.1	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	5.7	5.4	2.8	3.4	0.6	2.6	7.9	8.0	2.5	7.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.2	40.7	41.1	58.2	48.6	21.3	54.9	21.9	21.9	61.6	21.4	5.0
LnGrp LOS	E	D	D	E	D	C	D	C	C	E	C	A
Approach Vol, veh/h	692				477		1020				1095	
Approach Delay, s/veh	52.9				42.3		27.7				25.4	
Approach LOS	D				D		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	61.8	11.8	30.8	12.3	61.0	23.7	18.9				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	40	* 40	12.5	36.8	14.6	32.8	20.6	* 29				
Max Q Clear Time (g_c+11), s	20.3	7.8	15.7	7.9	20.2	18.5	9.5					
Green Ext Time (p_c), s	0.0	1.9	0.0	1.0	0.1	2.1	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	539	148	234	229	74	171	177	571	122	231	83
Future Volume (veh/h)	74	539	148	234	229	74	171	177	571	122	231	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	580	159	252	246	80	184	190	614	131	248	89
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	946	595	320	563	459	214	1240	655	160	1131	418
Arrive On Green	0.06	0.27	0.27	0.09	0.30	0.30	0.12	0.35	0.35	0.09	0.32	0.32
Sat Flow, veh/h	1781	3554	1520	3456	1870	1526	1781	3554	1457	1781	3554	1313
Grp Volume(v), veh/h	80	580	159	252	246	80	184	190	614	131	248	89
Grp Sat Flow(s),veh/h/ln	1781	1777	1520	1728	1870	1526	1781	1777	1457	1781	1777	1313
Q Serve(g_s), s	5.1	16.5	8.3	8.2	12.2	4.5	11.7	4.2	40.2	8.3	5.9	5.7
Cycle Q Clear(g_c), s	5.1	16.5	8.3	8.2	12.2	4.5	11.7	4.2	40.2	8.3	5.9	5.7
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	103	946	595	320	563	459	214	1240	655	160	1131	418
V/C Ratio(X)	0.78	0.61	0.27	0.79	0.44	0.17	0.86	0.15	0.94	0.82	0.22	0.21
Avail Cap(c_a), veh/h	463	1233	718	899	649	529	463	1240	655	463	1233	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	37.1	24.2	51.2	32.4	29.7	49.8	25.8	31.1	51.6	28.8	28.7
Incr Delay (d2), s/veh	4.8	0.8	0.3	1.7	0.3	0.1	3.9	0.1	21.2	4.0	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 BackOfQ(50%),veh/ln	2.4	7.2	3.0	3.6	5.6	1.7	5.4	1.8	19.8	3.9	2.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	37.9	24.5	52.9	32.7	29.8	53.6	25.9	52.3	55.5	28.8	28.8
LnGrp LOS	E	D	C	D	C	C	D	C	D	E	C	C
Approach Vol, veh/h		819			578			988			468	
Approach Delay, s/veh		37.3			41.1			47.4			36.3	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.1	36.6	19.3	43.4	12.0	40.6	15.7	46.9				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+l1), s	10.2	18.5	13.7	7.9	7.1	14.2	10.3	42.2				
Green Ext Time (p_c), s	0.4	5.5	0.2	1.3	0.1	1.2	0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			41.4									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	82	0	130	68	0	73	28	651	30	69	535	17
Future Volume (veh/h)	82	0	130	68	0	73	28	651	30	69	535	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	0	148	77	0	83	32	740	34	78	608	19
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	41	269	517	0	543	52	1699	78	100	1865	58
Arrive On Green	0.30	0.00	0.30	0.30	0.00	0.30	0.03	0.34	0.34	0.06	0.37	0.37
Sat Flow, veh/h	432	138	907	1233	0	1532	1781	5001	229	1781	5086	158
Grp Volume(v), veh/h	241	0	0	77	0	83	32	503	271	78	406	221
Grp Sat Flow(s), veh/h/ln	1477	0	0	1233	0	1532	1781	1702	1826	1781	1702	1840
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	1.8	0.8	5.5	5.5	2.1	4.1	4.1
Cycle Q Clear(g_c), s	6.3	0.0	0.0	2.2	0.0	1.8	0.8	5.5	5.5	2.1	4.1	4.1
Prop In Lane	0.39		0.61	1.00		1.00	1.00		0.13	1.00		0.09
Lane Grp Cap(c), veh/h	542	0	0	517	0	543	52	1156	620	100	1249	675
V/C Ratio(X)	0.44	0.00	0.00	0.15	0.00	0.15	0.62	0.43	0.44	0.78	0.33	0.33
Avail Cap(c_a), veh/h	1315	0	0	1177	0	1371	1118	4274	2293	1118	4274	2310
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	12.6	0.0	10.6	22.9	12.2	12.2	22.3	10.9	10.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	4.5	0.3	0.6	4.9	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.9	0.0	0.0	0.5	0.0	0.5	0.4	1.8	2.0	0.9	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.1	0.0	0.0	12.6	0.0	10.6	27.4	12.6	12.9	27.2	11.1	11.2
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	241			160			806			705		
Approach Delay, s/veh	14.1			11.6			13.3			12.9		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	21.6		19.1	5.8	22.9		19.1				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	14.1	7.5		8.3	2.8	6.1		4.2				
Green Ext Time (p_c), s	0.1	8.4		1.1	0.0	5.5		0.5				

Intersection Summary

HCM 6th Ctrl Delay 13.1

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Pacific Hwy & Enterprise St/SPAWAR Dwy

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	22	205	256	63	201	216	595	24	35	1274	73
Future Volume (veh/h)	159	22	205	256	63	201	216	595	24	35	1274	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.84	1.00		0.87	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	23	216	269	66	212	227	626	25	37	1341	77
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	326	231	290	431	317	253	1735	756	48	1296	74
Arrive On Green	0.11	0.17	0.17	0.16	0.23	0.23	0.14	0.49	0.49	0.03	0.38	0.38
Sat Flow, veh/h	1781	1870	1328	1781	1870	1375	1781	3554	1547	1781	3415	196
Grp Volume(v), veh/h	167	23	216	269	66	212	227	626	25	37	696	722
Grp Sat Flow(s),veh/h/ln	1781	1870	1328	1781	1870	1375	1781	1777	1547	1781	1777	1834
Q Serve(g_s), s	14.6	1.6	25.4	23.5	4.4	22.2	19.8	17.3	1.3	3.3	60.0	60.0
Cycle Q Clear(g_c), s	14.6	1.6	25.4	23.5	4.4	22.2	19.8	17.3	1.3	3.3	60.0	60.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	189	326	231	290	431	317	253	1735	756	48	674	696
V/C Ratio(X)	0.88	0.07	0.93	0.93	0.15	0.67	0.90	0.36	0.03	0.77	1.03	1.04
Avail Cap(c_a), veh/h	338	355	252	338	431	317	338	1735	756	338	674	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.7	54.6	64.4	65.3	48.5	55.3	66.7	25.1	21.0	76.4	49.0	49.0
Incr Delay (d2), s/veh	5.2	0.0	36.5	27.2	0.1	4.4	22.8	0.2	0.0	9.4	43.2	43.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	0.8	11.0	12.9	2.1	8.1	10.7	7.5	0.5	1.6	34.6	35.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	54.6	100.9	92.4	48.6	59.7	89.5	25.3	21.1	85.8	92.3	92.9
LnGrp LOS	E	D	F	F	D	E	F	C	C	F	F	F
Approach Vol, veh/h	406			547			878			1455		
Approach Delay, s/veh	87.6			74.5			41.8			92.4		
Approach LOS	F			E			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	85.9	30.1	32.4	26.8	68.7	21.2	41.3				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+1.3), s	15.3	19.3	25.5	27.4	21.8	62.0	16.6	24.2				
Green Ext Time (p_c), s	0.0	6.3	0.2	0.2	0.6	0.0	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay 75.3

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	268	35	221	88	0	0	0	0	544	88	40
Future Volume (veh/h)	0	268	35	221	88	0	0	0	0	544	88	40
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	288	38	238	95	0				653	0	43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	275	548	241	403	770	0				908	0	648
Arrive On Green	0.00	0.15	0.15	0.23	0.23	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1781	3554	1564	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	288	38	238	95	0				653	0	43
Grp Sat Flow(s), veh/h/ln	1781	1777	1564	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	3.0	0.8	4.7	0.9	0.0				6.6	0.0	0.7
Cycle Q Clear(g_c), s	0.0	3.0	0.8	4.7	0.9	0.0				6.6	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	275	548	241	403	770	0				908	0	648
V/C Ratio(X)	0.00	0.53	0.16	0.59	0.12	0.00				0.72	0.00	0.07
Avail Cap(c_a), veh/h	2688	5363	2361	2688	5137	0				3136	0	1638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.5	14.6	13.7	12.2	0.0				13.5	0.0	7.1
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.6	0.1	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 BackOfQ(50%), veh/ln	0.0	0.9	0.2	1.5	0.3	0.0				2.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.8	14.7	15.3	12.3	0.0				13.9	0.0	7.2
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	326			333			696					
Approach Delay, s/veh	15.6			14.4			13.5					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	10.1			16.3			13.3					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	5.0			8.6			6.7					
Green Ext Time (p_c), s	1.2			1.4			2.2					

Intersection Summary

HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2026 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	769	0	0	279	273	28	15	157	38	0	252
Future Volume (veh/h)	99	769	0	0	279	273	28	15	157	38	0	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	845	0	0	307	300	31	16	173	42	0	277
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	145	1438	0	0	467	417	285	22	233	50	0	327
Arrive On Green	0.08	0.40	0.00	0.00	0.26	0.26	0.16	0.16	0.16	0.24	0.00	0.24
Sat Flow, veh/h	1781	3647	0	0	1870	1585	1781	135	1457	208	0	1373
Grp Volume(v), veh/h	109	845	0	0	307	300	31	0	189	319	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1592	1581	0	0
Q Serve(g_s), s	4.5	13.9	0.0	0.0	11.5	12.9	1.1	0.0	8.5	14.4	0.0	0.0
Cycle Q Clear(g_c), s	4.5	13.9	0.0	0.0	11.5	12.9	1.1	0.0	8.5	14.4	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.92	0.13		0.87
Lane Grp Cap(c), veh/h	145	1438	0	0	467	417	285	0	254	377	0	0
V/C Ratio(X)	0.75	0.59	0.00	0.00	0.66	0.72	0.11	0.00	0.74	0.85	0.00	0.00
Avail Cap(c_a), veh/h	713	2846	0	0	1423	1269	951	0	850	844	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.7	17.4	0.0	0.0	24.6	25.1	26.9	0.0	30.0	27.2	0.0	0.0
Incr Delay (d2), s/veh	9.0	0.1	0.0	0.0	1.9	2.8	0.1	0.0	1.6	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.9	0.0	0.0	4.6	4.7	0.5	0.0	3.2	5.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	17.6	0.0	0.0	26.5	27.9	27.0	0.0	31.6	29.3	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	954				607		220				319	
Approach Delay, s/veh	20.4				27.2		31.0				29.3	
Approach LOS	C				C		C				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	34.7		21.8		10.6		24.1		18.4			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	15.9		16.4		6.5		14.9		10.5			
Green Ext Time (p_c), s	3.8		1.4		0.3		4.8		0.8			

Intersection Summary

HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	833	131	258	395	0	0	0	0	897	415	179
Future Volume (veh/h)	0	833	131	258	395	0	0	0	0	897	415	179
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	877	138	272	416	0				944	437	188
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1479	646	357	2032	0				1109	582	491
Arrive On Green	0.00	0.42	0.42	0.14	0.76	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3647	1553	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	877	138	272	416	0				944	437	188
Grp Sat Flow(s),veh/h/ln	0	1777	1553	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	16.1	4.8	6.4	2.8	0.0				20.9	17.6	7.8
Cycle Q Clear(g_c), s	0.0	16.1	4.8	6.4	2.8	0.0				20.9	17.6	7.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1479	646	357	2032	0				1109	582	491
V/C Ratio(X)	0.00	0.59	0.21	0.76	0.20	0.00				0.85	0.75	0.38
Avail Cap(c_a), veh/h	0	1479	646	703	2032	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	19.0	15.7	35.2	4.6	0.0				27.1	26.0	22.6
Incr Delay (d2), s/veh	0.0	1.5	0.7	1.2	0.2	0.0				3.8	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.2	1.6	2.5	0.9	0.0				9.1	7.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.5	16.4	36.5	4.9	0.0				30.9	28.6	22.8
LnGrp LOS	A	C	B	D	A	A				C	C	C
Approach Vol, veh/h		1015			688						1569	
Approach Delay, s/veh		20.0			17.4						29.3	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.1	39.9		31.1		52.9						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.4	18.1		22.9		4.8						
Green Ext Time (p_c), s	0.3	1.6		3.3		3.0						

Intersection Summary

HCM 6th Ctrl Delay	23.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↑			↑↑	↖		↖↗				
Traffic Volume (veh/h)	324	1392	0	0	521	477	126	213	40	0	0	0
Future Volume (veh/h)	324	1392	0	0	521	477	126	213	40	0	0	0
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		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	341	1465	0	0	548	502	133	224	42			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1222	2652	0	0	1189	530	224	416	77			
Arrive On Green	0.71	1.00	0.00	0.00	0.33	0.33	0.14	0.14	0.14			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1637	3039	561			
Grp Volume(v), veh/h	341	1465	0	0	548	502	145	123	131			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1789	1702	1747			
Q Serve(g_s), s	3.0	0.0	0.0	0.0	10.2	25.9	6.4	5.6	5.9			
Cycle Q Clear(g_c), s	3.0	0.0	0.0	0.0	10.2	25.9	6.4	5.6	5.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.92		0.32			
Lane Grp Cap(c), veh/h	1222	2652	0	0	1189	530	245	233	239			
V/C Ratio(X)	0.28	0.55	0.00	0.00	0.46	0.95	0.59	0.53	0.55			
Avail Cap(c_a), veh/h	1222	2652	0	0	1189	530	598	569	584			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.56	0.56	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.4	0.0	0.0	0.0	22.0	27.2	34.1	33.7	33.8			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.3	27.9	0.9	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	0.2	0.0	0.0	4.1	12.9	2.8	2.3	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.5	0.5	0.0	0.0	23.3	55.1	34.9	34.4	34.5			
LnGrp LOS	A	A	A	A	C	E	C	C	C			
Approach Vol, veh/h	1806			1050			399					
Approach Delay, s/veh	2.0			38.5			34.6					
Approach LOS	A			D			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.6			34.6			33.0			16.4		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+l1), s	2.0			5.0			27.9			8.4		
Green Ext Time (p_c), s	17.8			0.7			0.1			1.5		

Intersection Summary

HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	24	45	21	1251	25	0	0	0
Future Volume (veh/h)	0	0	0	0	24	45	21	1251	25	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	25	47	22	1317	26			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	32	60	113	3319	65			
Arrive On Green				0.00	0.06	0.06	0.67	0.67	0.67			
Sat Flow, veh/h				0	581	1093	28	4968	97			
Grp Volume(v), veh/h				0	0	72	500	415	451			
Grp Sat Flow(s),veh/h/ln				0	0	1674	1861	1549	1683			
Q Serve(g_s), s				0.0	0.0	1.7	0.0	4.9	4.9			
Cycle Q Clear(g_c), s				0.0	0.0	1.7	4.9	4.9	4.9			
Prop In Lane				0.00		0.65	0.04		0.06			
Lane Grp Cap(c), veh/h				0	0	92	1337	1035	1124			
V/C Ratio(X)				0.00	0.00	0.78	0.37	0.40	0.40			
Avail Cap(c_a), veh/h				0	0	1670	2865	2318	2518			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	18.7	3.0	3.0	3.0			
Incr Delay (d2), s/veh				0.0	0.0	5.3	0.3	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.7	0.6	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	24.0	3.3	3.4	3.4			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					72			1365				
Approach Delay, s/veh					24.0			3.3				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		32.4						7.7				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		6.9						3.7				
Green Ext Time (p_c), s		19.9						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.4									
HCM 6th LOS			A									

9: Pacific Hwy & W Admiral Boland Wy/Sassafrass St

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	217	92	276	325	85	172	428	72	159	1035	54
Future Volume (veh/h)	116	217	92	276	325	85	172	428	72	159	1035	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	231	98	294	346	90	183	455	77	169	1101	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	152	328	277	325	390	101	214	1583	262	200	1745	90
Arrive On Green	0.09	0.18	0.18	0.18	0.27	0.27	0.12	0.36	0.36	0.11	0.35	0.35
Sat Flow, veh/h	1781	1870	1580	1781	1430	372	1781	4409	729	1781	4969	257
Grp Volume(v), veh/h	123	231	98	294	0	436	183	349	183	169	754	404
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	0	1802	1781	1702	1734	1781	1702	1822
Q Serve(g_s), s	7.5	12.9	6.1	18.0	0.0	25.8	11.2	8.1	8.4	10.3	20.5	20.5
Cycle Q Clear(g_c), s	7.5	12.9	6.1	18.0	0.0	25.8	11.2	8.1	8.4	10.3	20.5	20.5
Prop In Lane	1.00		1.00	1.00		0.21	1.00		0.42	1.00		0.14
Lane Grp Cap(c), veh/h	152	328	277	325	0	491	214	1222	623	200	1195	640
V/C Ratio(X)	0.81	0.71	0.35	0.90	0.00	0.89	0.85	0.29	0.29	0.85	0.63	0.63
Avail Cap(c_a), veh/h	481	673	569	481	0	649	481	1838	936	481	1838	984
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	49.9	43.1	40.3	44.5	0.0	38.8	47.9	25.4	25.5	48.4	30.1	30.1
Incr Delay (d2), s/veh	3.9	1.0	0.3	11.7	0.0	11.5	3.7	0.2	0.5	3.8	1.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	6.1	2.4	9.0	0.0	13.0	5.1	3.3	3.5	4.7	8.4	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	44.2	40.6	56.1	0.0	50.3	51.7	25.7	26.0	52.1	31.0	31.9
LnGrp LOS	D	D	D	E	A	D	D	C	C	D	C	C
Approach Vol, veh/h	452		730			715		1327				
Approach Delay, s/veh	46.0		52.6			32.4		34.0				
Approach LOS	D		D			C		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.9	45.2	24.7	24.4	17.8	44.3	13.9	35.2				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+1/2), s	12.3	10.4	20.0	14.9	13.2	22.5	9.5	27.8				
Green Ext Time (p_c), s	0.2	6.9	0.3	1.1	0.2	16.5	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	39.6
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2026 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖↑					↖↑↑↑		
Traffic Volume (veh/h)	0	220	316	83	177	0	0	0	0	225	2125	347
Future Volume (veh/h)	0	220	316	83	177	0	0	0	0	225	2125	347
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	237	340	89	190	0				242	2285	373
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	459	388	163	445	0				1104	2756	434
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1581	399	1900	0				1781	4447	701
Grp Volume(v), veh/h	0	237	340	121	158	0				242	1730	928
Grp Sat Flow(s),veh/h/ln	0	1870	1581	597	1617	0				1781	1702	1744
Q Serve(g_s), s	0.0	10.5	19.9	10.2	7.9	0.0				5.8	37.8	41.7
Cycle Q Clear(g_c), s	0.0	10.5	19.9	20.7	7.9	0.0				5.8	37.8	41.7
Prop In Lane	0.00		1.00	0.74		0.00				1.00		0.40
Lane Grp Cap(c), veh/h	0	459	388	211	397	0				1104	2110	1081
V/C Ratio(X)	0.00	0.52	0.88	0.57	0.40	0.00				0.22	0.82	0.86
Avail Cap(c_a), veh/h	0	583	492	276	504	0				1110	2120	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.4	34.9	38.6	30.4	0.0				8.1	14.2	14.9
Incr Delay (d2), s/veh	0.0	0.3	11.7	1.8	0.5	0.0				0.2	2.9	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 BackOfQ(50%),veh/ln	0.0	4.8	8.8	2.9	3.1	0.0				2.1	13.7	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.8	46.7	40.4	30.9	0.0				8.2	17.1	22.3
LnGrp LOS	A	C	D	D	C	A				A	B	C
Approach Vol, veh/h	577				279				2900			
Approach Delay, s/veh	40.5				35.0				18.0			
Approach LOS	D				D				B			
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				30.3		66.0		30.3				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				21.9		43.7		22.7				
Green Ext Time (p_c), s				1.1		16.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay	22.7											
HCM 6th LOS	C											

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	160	47	250	0	22	13	239	1342	47	0	0	0
Future Volume (veh/h)	160	47	250	0	22	13	239	1342	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	168	49	263	0	23	14	252	1413	49			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	380	84	1215	0	254	154	955	1877	65			
Arrive On Green	0.23	0.23	0.23	0.00	0.23	0.23	0.54	0.54	0.54			
Sat Flow, veh/h	1049	362	1568	0	1089	663	1781	3502	121			
Grp Volume(v), veh/h	217	0	263	0	0	37	252	716	746			
Grp Sat Flow(s),veh/h/ln	1411	0	1568	0	0	1751	1781	1777	1847			
Q Serve(g_s), s	6.0	0.0	0.0	0.0	0.0	0.8	3.6	14.8	14.8			
Cycle Q Clear(g_c), s	6.7	0.0	0.0	0.0	0.0	0.8	3.6	14.8	14.8			
Prop In Lane	0.77		1.00	0.00		0.38	1.00		0.07			
Lane Grp Cap(c), veh/h	464	0	1215	0	0	408	955	952	990			
V/C Ratio(X)	0.47	0.00	0.22	0.00	0.00	0.09	0.26	0.75	0.75			
Avail Cap(c_a), veh/h	1052	0	1846	0	0	1114	1114	1111	1155			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	16.6	0.0	1.5	0.0	0.0	14.2	5.9	8.5	8.5			
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.0	0.0	0.0	0.1	2.5	2.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	0.0	3.5	0.0	0.0	0.3	1.0	4.5	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	1.6	0.0	0.0	14.2	6.1	11.0	11.0			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h	480			37			1714					
Approach Delay, s/veh	8.7			14.2			10.3					
Approach LOS	A			B			B					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	29.8			17.4			17.4					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+I1), s	16.8			8.7			2.8					
Green Ext Time (p_c), s	8.4			2.3			0.1					

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2026 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	48	49	125	3	10	21	574	200	215	1299	22
Future Volume (veh/h)	32	48	49	125	3	10	21	574	200	215	1299	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	56	57	145	3	12	24	667	233	250	1510	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	440	202	205	354	77	309	39	2072	639	374	2544	44
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.02	0.41	0.41	0.11	0.49	0.49
Sat Flow, veh/h	1385	845	860	1270	324	1297	1781	5106	1575	3456	5168	89
Grp Volume(v), veh/h	37	0	113	145	0	15	24	667	233	250	995	541
Grp Sat Flow(s),veh/h/ln	1385	0	1705	1270	0	1621	1781	1702	1575	1728	1702	1853
Q Serve(g_s), s	1.3	0.0	3.3	6.3	0.0	0.4	0.8	5.4	6.2	4.2	12.6	12.6
Cycle Q Clear(g_c), s	1.7	0.0	3.3	9.6	0.0	0.4	0.8	5.4	6.2	4.2	12.6	12.6
Prop In Lane	1.00		0.50	1.00		0.80	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	440	0	407	354	0	387	39	2072	639	374	1675	912
V/C Ratio(X)	0.08	0.00	0.28	0.41	0.00	0.04	0.61	0.32	0.36	0.67	0.59	0.59
Avail Cap(c_a), veh/h	1029	0	1132	894	0	1077	887	5086	1568	1721	3391	1846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	0.0	18.7	22.6	0.0	17.6	29.2	12.2	12.5	25.8	11.0	11.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	5.7	0.2	0.6	0.8	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.2	1.8	0.0	0.2	0.4	1.8	2.0	1.6	3.9	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	18.8	22.9	0.0	17.6	34.9	12.4	13.1	26.6	11.3	11.6
LnGrp LOS	B	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h	150		160			924			1786			
Approach Delay, s/veh	18.7		22.4			13.2			13.5			
Approach LOS	B		C			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	30.9	30.1	19.2		5.7	35.3	19.2					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	10.2	8.2	5.3		2.8	14.6	11.6					
Green Ext Time (p_c), s	0.4	11.8	0.5		0.0	15.0	0.3					

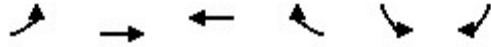
Intersection Summary

HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	3316	12	0	1631	0	1
Future Vol, veh/h	3316	12	0	1631	0	1
Conflicting Peds, #/hr	0	1	1	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	98	98	98	98	98	98
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	3384	12	0	1664	0	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1699
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	69
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	69
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		58		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	69	-	-	-		
HCM Lane V/C Ratio	0.015	-	-	-		
HCM Control Delay (s)	58	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↰	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1251	2110	1687	138	87	39
Future Volume (veh/h)	1251	2110	1687	138	87	39
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1303	2198	1757	0	91	41
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1072	4204	2472		120	107
Arrive On Green	0.31	0.84	0.50	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1303	2198	1757	0	91	41
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	36.6	14.6	32.4	0.0	5.9	2.9
Cycle Q Clear(g_c), s	36.6	14.6	32.4	0.0	5.9	2.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1072	4204	2472		120	107
V/C Ratio(X)	1.22	0.52	0.71		0.76	0.38
Avail Cap(c_a), veh/h	1072	4204	2472		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.75	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	2.6	23.1	0.0	54.1	52.7
Incr Delay (d2), s/veh	105.7	0.5	1.3	0.0	3.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.5	2.2	12.0	0.0	2.7	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	146.4	3.1	24.5	0.0	57.7	53.5
LnGrp LOS	F	A	C		E	D
Approach Vol, veh/h		3501	1757	A	132	
Approach Delay, s/veh		56.4	24.5		56.4	
Approach LOS		E	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.8		13.2	41.0	63.8
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	36.6	* 37
Max Q Clear Time (g_c+I1), s		16.6		7.9	38.6	34.4
Green Ext Time (p_c), s		57.0		0.2	0.0	2.3
Intersection Summary						
HCM 6th Ctrl Delay			46.0			
HCM 6th LOS			D			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2026 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	1332	94	104	748	110	96	300	146	206	768	569
Future Volume (veh/h)	305	1332	94	104	748	110	96	300	146	206	768	569
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	355	1549	109	121	870	128	112	349	170	240	893	662
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1656	116	139	1125	166	134	468	213	262	1065	665
Arrive On Green	0.21	0.49	0.49	0.03	0.12	0.12	0.08	0.14	0.14	0.15	0.21	0.21
Sat Flow, veh/h	1781	3366	235	1781	3107	457	1781	3419	1555	1781	5106	1566
Grp Volume(v), veh/h	355	813	845	121	498	500	112	347	172	240	893	662
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1787	1781	1702	1570	1781	1702	1566
Q Serve(g_s), s	27.4	60.0	61.4	9.5	38.0	38.0	8.7	13.7	14.8	18.6	23.5	29.2
Cycle Q Clear(g_c), s	27.4	60.0	61.4	9.5	38.0	38.0	8.7	13.7	14.8	18.6	23.5	29.2
Prop In Lane	1.00		0.13	1.00		0.26	1.00		0.99	1.00		1.00
Lane Grp Cap(c), veh/h	381	874	898	139	644	647	134	466	215	262	1065	665
V/C Ratio(X)	0.93	0.93	0.94	0.87	0.77	0.77	0.83	0.75	0.80	0.92	0.84	0.99
Avail Cap(c_a), veh/h	440	874	898	139	644	647	156	511	236	262	1065	665
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.99	0.99	0.99	0.82	0.82	0.82
Uniform Delay (d), s/veh	54.0	33.3	33.6	67.5	56.0	56.0	63.8	58.1	58.5	58.9	53.1	40.4
Incr Delay (d2), s/veh	25.0	17.5	18.8	44.3	8.0	7.9	23.9	5.5	16.4	29.3	5.2	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	28.8	30.5	6.2	19.6	19.7	4.8	6.2	6.8	10.5	10.5	27.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.0	50.8	52.4	111.8	64.0	64.0	87.8	63.6	74.9	88.1	58.4	70.7
LnGrp LOS	E	D	D	F	E	E	F	E	E	F	E	E
Approach Vol, veh/h	2013			1119			631			1795		
Approach Delay, s/veh	56.5			69.1			71.0			66.9		
Approach LOS	E			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.0	24.2	16.7	74.1	15.0	34.2	34.3	56.5				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	20.6	* 21	10.6	* 69	12.3	29.2	34.6	44.3				
Max Q Clear Time (g_c+20.6), s	20.6	16.8	11.5	63.4	10.7	31.2	29.4	40.0				
Green Ext Time (p_c), s	0.0	1.3	0.0	4.8	0.0	0.0	0.5	2.1				

Intersection Summary

HCM 6th Ctrl Delay	64.0
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑↑	↔
Traffic Volume (veh/h)	0	1447	156	38	190	0	0	0	0	298	670	802
Future Volume (veh/h)	0	1447	156	38	190	0	0	0	0	298	670	802
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1539	166	40	202	0				317	713	853
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	3005	321	62	3533	0				531	1310	522
Arrive On Green	0.00	0.62	0.62	0.04	0.99	0.00				0.33	0.33	0.33
Sat Flow, veh/h	0	3332	346	1781	3647	0				1595	3936	1569
Grp Volume(v), veh/h	0	837	868	40	202	0				356	674	853
Grp Sat Flow(s),veh/h/ln	0	1777	1807	1781	1777	0				1791	1870	1569
Q Serve(g_s), s	0.0	36.5	37.5	3.1	0.0	0.0				23.2	20.5	46.6
Cycle Q Clear(g_c), s	0.0	36.5	37.5	3.1	0.0	0.0				23.2	20.5	46.6
Prop In Lane	0.00		0.19	1.00		0.00				0.89		1.00
Lane Grp Cap(c), veh/h	0	1649	1677	62	3533	0				596	1245	522
V/C Ratio(X)	0.00	0.51	0.52	0.64	0.06	0.00				0.60	0.54	1.63
Avail Cap(c_a), veh/h	0	1649	1677	62	3533	0				596	1245	522
HCM Platoon Ratio	1.00	0.67	0.67	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.21	0.21	0.77	0.77	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	8.8	9.0	66.7	0.0	0.0				38.9	38.0	46.7
Incr Delay (d2), s/veh	0.0	0.2	0.2	12.6	0.0	0.0				4.4	1.7	293.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.8	14.4	1.6	0.0	0.0				11.1	9.9	60.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	9.2	79.3	0.0	0.0				43.3	39.7	340.2
LnGrp LOS	A	A	A	E	A	A				D	D	F
Approach Vol, veh/h		1705			242						1883	
Approach Delay, s/veh		9.1			13.1						176.5	
Approach LOS		A			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	93.3			52.0		147.5						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	93.3	* 74		46.6		81.4						
Max Q Clear Time (g_c+1/4), s	15.1	39.5		48.6		2.0						
Green Ext Time (p_c), s	0.0	4.4		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	91.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2026 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	794	920	0	0	194	162	42	246	124	0	0	0
Future Volume (veh/h)	794	920	0	0	194	162	42	246	124	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	854	989	0	0	209	174	45	265	133			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1440	1364	0	0	474	375	74	463	217			
Arrive On Green	0.42	0.73	0.00	0.00	0.25	0.25	0.15	0.15	0.15			
Sat Flow, veh/h	3456	1870	0	0	1980	1492	502	3120	1462			
Grp Volume(v), veh/h	854	989	0	0	196	187	166	144	133			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1602	1845	1777	1462			
Q Serve(g_s), s	15.3	24.3	0.0	0.0	7.4	7.9	6.7	6.0	6.8			
Cycle Q Clear(g_c), s	15.3	24.3	0.0	0.0	7.4	7.9	6.7	6.0	6.8			
Prop In Lane	1.00		0.00	0.00		0.93	0.27		1.00			
Lane Grp Cap(c), veh/h	1440	1364	0	0	446	402	274	264	217			
V/C Ratio(X)	0.59	0.73	0.00	0.00	0.44	0.46	0.60	0.55	0.61			
Avail Cap(c_a), veh/h	1440	1364	0	0	466	420	484	466	384			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.30	0.30	0.00	0.00	1.00	1.00	0.95	0.95	0.95			
Uniform Delay (d), s/veh	18.1	6.2	0.0	0.0	25.2	25.4	31.9	31.6	31.9			
Incr Delay (d2), s/veh	0.2	1.0	0.0	0.0	0.3	0.3	0.8	0.6	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.5	6.0	0.0	0.0	3.0	2.8	3.0	2.6	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	7.3	0.0	0.0	25.5	25.7	32.6	32.2	32.9			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	1843			383			443					
Approach Delay, s/veh	12.4			25.6			32.6					
Approach LOS	B			C			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	63.2			38.2			25.0			16.8		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	49.2			23.8			* 21			21.0		
Max Q Clear Time (g_c+I1), s	26.3			17.3			9.9			8.8		
Green Ext Time (p_c), s	5.0			2.0			1.1			1.2		

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	187	1140	656	0	0	2297
Future Volume (veh/h)	187	1140	656	0	0	2297
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	195	0	683	0	0	2393
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	227		3086	0	222	4922
Arrive On Green	0.13	0.00	0.62	0.00	0.00	0.78
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	195	0	683	0	0	2393
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.8	0.0	6.7	0.0	0.0	14.7
Cycle Q Clear(g_c), s	11.8	0.0	6.7	0.0	0.0	14.7
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	227		3086	0	222	4922
V/C Ratio(X)	0.86		0.22	0.00	0.00	0.49
Avail Cap(c_a), veh/h	520		3086	0	625	4922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.00	0.92	0.00	0.00	0.81
Uniform Delay (d), s/veh	47.0	0.0	9.2	0.0	0.0	4.2
Incr Delay (d2), s/veh	2.7	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	2.1	0.0	0.0	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.7	0.0	9.3	0.0	0.0	4.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	195	A	683			2393
Approach Delay, s/veh	49.7		9.3			4.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.1	73.0			91.1	18.9
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	38.6	25.1			68.1	32.1
Max Q Clear Time (g_c+10), s	10.6	8.7			16.7	13.8
Green Ext Time (p_c), s	0.0	5.4			38.9	0.2

Intersection Summary

HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	178	1176	102	135	422	0	0	887	55
Future Volume (veh/h)	0	0	0	178	1176	102	135	422	0	0	887	55
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				187	1238	107	142	444	0	0	934	58
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				259	1833	163	170	1943	0	0	1112	69
Arrive On Green				0.14	0.14	0.14	0.19	0.76	0.00	0.00	0.23	0.23
Sat Flow, veh/h				613	4337	385	1781	5274	0	0	5073	304
Grp Volume(v), veh/h				561	473	498	142	444	0	0	647	345
Grp Sat Flow(s),veh/h/ln				1840	1702	1793	1781	1702	0	0	1702	1805
Q Serve(g_s), s				32.1	28.9	28.9	8.4	2.8	0.0	0.0	20.0	20.1
Cycle Q Clear(g_c), s				32.1	28.9	28.9	8.4	2.8	0.0	0.0	20.0	20.1
Prop In Lane				0.33		0.21	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				778	719	758	170	1943	0	0	772	409
V/C Ratio(X)				0.72	0.66	0.66	0.83	0.23	0.00	0.00	0.84	0.84
Avail Cap(c_a), veh/h				778	719	758	275	2400	0	0	891	473
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.81	0.81	0.81	0.64	0.64	0.00	0.00	0.41	0.41
Uniform Delay (d), s/veh				41.1	39.8	39.8	43.6	8.5	0.0	0.0	40.6	40.6
Incr Delay (d2), s/veh				4.7	3.8	3.6	3.5	0.0	0.0	0.0	2.6	4.8
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 BackOfQ(50%),veh/ln				16.8	13.9	14.6	3.5	0.9	0.0	0.0	8.5	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.8	43.6	43.4	47.2	8.5	0.0	0.0	43.2	45.5
LnGrp LOS				D	D	D	D	A	A	A	D	D
Approach Vol, veh/h					1532			586			992	
Approach Delay, s/veh					44.3			17.9			44.0	
Approach LOS					D			B			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.4	31.3		52.4	47.8				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				17.0	* 29		46.5	51.7				
Max Q Clear Time (g_c+I1), s				10.4	22.1		34.1	4.8				
Green Ext Time (p_c), s				0.1	2.9		6.5	3.7				
Intersection Summary												
HCM 6th Ctrl Delay											39.2	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	260	1412	0	0	0	0	0	506	74
Future Volume (veh/h)	0	0	0	260	1412	0	0	0	0	0	506	74
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				271	1471	0				0	527	77
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				493	2877	0				0	1189	170
Arrive On Green				0.21	0.21	0.00				0.00	0.26	0.26
Sat Flow, veh/h				767	4638	0				0	4662	644
Grp Volume(v), veh/h				648	1094	0				0	397	207
Grp Sat Flow(s),veh/h/ln				1832	1702	0				0	1702	1734
Q Serve(g_s), s				34.7	31.2	0.0				0.0	10.7	11.0
Cycle Q Clear(g_c), s				34.7	31.2	0.0				0.0	10.7	11.0
Prop In Lane				0.42		0.00				0.00		0.37
Lane Grp Cap(c), veh/h				1179	2191	0				0	901	459
V/C Ratio(X)				0.55	0.50	0.00				0.00	0.44	0.45
Avail Cap(c_a), veh/h				1179	2191	0				0	901	459
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				29.1	27.7	0.0				0.0	33.7	33.8
Incr Delay (d2), s/veh				1.8	0.8	0.0				0.0	1.6	3.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				17.6	14.4	0.0				0.0	4.6	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.9	28.5	0.0				0.0	35.2	37.0
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					1742						604	
Approach Delay, s/veh					29.4						35.8	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				34.0		76.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				29.1		70.8						
Max Q Clear Time (g_c+I1), s				13.0		36.7						
Green Ext Time (p_c), s				0.9		2.7						
Intersection Summary												
HCM 6th Ctrl Delay				31.1								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1595	101	91	194	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1595	101	91	194	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1644	104	94	200	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3235	204	269	617	0			
Arrive On Green				0.00	0.22	0.22	0.08	0.08	0.00			
Sat Flow, veh/h				0	5077	310	1090	2596	0			
Grp Volume(v), veh/h				0	1140	608	157	137	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1815	1816	1777	0			
Q Serve(g_s), s				0.0	32.4	32.4	9.0	8.0	0.0			
Cycle Q Clear(g_c), s				0.0	32.4	32.4	9.0	8.0	0.0			
Prop In Lane				0.00		0.17	0.60		0.00			
Lane Grp Cap(c), veh/h				0	2244	1196	447	438	0			
V/C Ratio(X)				0.00	0.51	0.51	0.35	0.31	0.00			
Avail Cap(c_a), veh/h				0	2244	1196	447	438	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	27.3	27.4	42.2	41.8	0.0			
Incr Delay (d2), s/veh				0.0	0.8	1.5	2.2	1.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	15.0	16.2	4.6	4.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	28.2	28.9	44.4	43.6	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					1748			294				
Approach Delay, s/veh					28.4			44.0				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						78.0		32.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						72.5		27.1				
Max Q Clear Time (g_c+l1), s						34.4		11.0				
Green Ext Time (p_c), s						18.3		1.5				
Intersection Summary												
HCM 6th Ctrl Delay				30.7								
HCM 6th LOS				C								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	247	1695	0	0	0	0	0	522	53
Future Volume (veh/h)	0	0	0	247	1695	0	0	0	0	0	522	53
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				263	1803	0				0	555	56
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				392	2883	0				0	1005	441
Arrive On Green				0.21	0.21	0.00				0.00	0.28	0.28
Sat Flow, veh/h				627	4784	0				0	3647	1562
Grp Volume(v), veh/h				771	1295	0				0	555	56
Grp Sat Flow(s),veh/h/ln				1839	1702	0				0	1777	1562
Q Serve(g_s), s				42.5	38.0	0.0				0.0	14.6	2.9
Cycle Q Clear(g_c), s				42.5	38.0	0.0				0.0	14.6	2.9
Prop In Lane				0.34		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1149	2126	0				0	1005	441
V/C Ratio(X)				0.67	0.61	0.00				0.00	0.55	0.13
Avail Cap(c_a), veh/h				1149	2126	0				0	1005	441
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				33.3	31.5	0.0				0.0	33.5	29.3
Incr Delay (d2), s/veh				3.1	1.3	0.0				0.0	2.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.9	17.7	0.0				0.0	6.6	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.4	32.8	0.0				0.0	35.7	29.9
LnGrp LOS				D	C	A				A	D	C
Approach Vol, veh/h					2066						611	
Approach Delay, s/veh					34.1						35.2	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				36.0		74.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				31.1		68.7						
Max Q Clear Time (g_c+l1), s				16.6		44.5						
Green Ext Time (p_c), s				3.6		17.1						
Intersection Summary												
HCM 6th Ctrl Delay											34.4	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1903	58	68	105	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1903	58	68	105	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2003	61	72	111	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3541	108	279	472	0			
Arrive On Green				0.00	0.70	0.70	0.07	0.07	0.00			
Sat Flow, veh/h				0	5260	155	1331	2343	0			
Grp Volume(v), veh/h				0	1338	726	98	85	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1842	1804	1777	0			
Q Serve(g_s), s				0.0	21.7	21.8	5.6	5.0	0.0			
Cycle Q Clear(g_c), s				0.0	21.7	21.8	5.6	5.0	0.0			
Prop In Lane				0.00		0.08	0.74		0.00			
Lane Grp Cap(c), veh/h				0	2367	1281	379	373	0			
V/C Ratio(X)				0.00	0.57	0.57	0.26	0.23	0.00			
Avail Cap(c_a), veh/h				0	2367	1281	379	373	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	8.4	8.4	43.1	42.8	0.0			
Incr Delay (d2), s/veh				0.0	1.0	1.8	1.6	1.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	7.4	8.3	2.8	2.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	9.4	10.2	44.7	44.2	0.0			
LnGrp LOS				A	A	B	D	D	A			
Approach Vol, veh/h					2064			183				
Approach Delay, s/veh					9.7			44.5				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.0		28.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						76.5		23.1				
Max Q Clear Time (g_c+I1), s						23.8		7.6				
Green Ext Time (p_c), s						27.4		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											12.5	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↑
Traffic Vol, veh/h	0	0	0	0	178	656	3	105	0	0	0	25
Future Vol, veh/h	0	0	0	0	178	656	3	105	0	0	0	25
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	185	683	3	109	0	0	0	26

Major/Minor	Major2		Minor1		Minor2	
Conflicting Flow All	-	-	0	93	868	-
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	93	868	-
Critical Hdwy	-	-	-	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	-
Pot Cap-1 Maneuver	0	-	-	881	289	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	904	368	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	840	289	-
Mov Cap-2 Maneuver	-	-	-	840	289	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	863	368	-

Approach	WB	NB	SB
HCM Control Delay, s	0	24.8	11.6
HCM LOS		C	B

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	289	-	-	570
HCM Lane V/C Ratio	0.378	-	-	0.046
HCM Control Delay (s)	24.8	-	-	11.6
HCM Lane LOS	C	-	-	B
HCM 95th %tile Q(veh)	1.7	-	-	0.1

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	646	143	1306	1212	0
Future Volume (veh/h)	0	0	0	0	0	0	0	646	143	1306	1212	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.91	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	659	146	1333	1237	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1846	537	2725	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.37	0.37	0.54	0.95	0.00
Sat Flow, veh/h		0					0	5149	1450	5023	1826	0
Grp Volume(v), veh/h		0.0					0	659	146	1333	1237	0
Grp Sat Flow(s),veh/h/ln							0	1662	1450	1674	1826	0
Q Serve(g_s), s							0.0	10.6	7.8	18.2	10.9	0.0
Cycle Q Clear(g_c), s							0.0	10.6	7.8	18.2	10.9	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1846	537	2725	1740	0
V/C Ratio(X)							0.00	0.36	0.27	0.49	0.71	0.00
Avail Cap(c_a), veh/h							0	1846	537	2725	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh							0.0	25.1	24.2	15.7	0.4	0.0
Incr Delay (d2), s/veh							0.0	0.3	0.7	0.1	2.1	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	4.0	2.6	6.3	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	25.4	25.0	15.8	2.5	0.0
LnGrp LOS							A	C	C	B	A	A
Approach Vol, veh/h								805			2570	
Approach Delay, s/veh								25.3			9.4	
Approach LOS								C			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	64.1	45.9					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	28.0	* 37					68.8					
Max Q Clear Time (g_c+l1), s	20.2	12.6					12.9					
Green Ext Time (p_c), s	3.5	9.9					23.2					
Intersection Summary												
HCM 6th Ctrl Delay			13.2									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗					↑↑↑		↘	↑↑↑	
Traffic Volume (veh/h)	59	1397	66	0	0	0	0	454	241	216	887	0
Future Volume (veh/h)	59	1397	66	0	0	0	0	454	241	216	887	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	60	1426	67				0	463	246	220	905	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	105	2661	827				0	688	298	247	1945	0
Arrive On Green	0.17	0.17	0.17				0.00	0.20	0.20	0.28	0.76	0.00
Sat Flow, veh/h	200	5064	1573				0	3572	1475	1781	5274	0
Grp Volume(v), veh/h	558	928	67				0	463	246	220	905	0
Grp Sat Flow(s),veh/h/ln	1860	1702	1573				0	1702	1475	1781	1702	0
Q Serve(g_s), s	30.2	27.3	3.9				0.0	13.8	17.6	13.0	7.2	0.0
Cycle Q Clear(g_c), s	30.2	27.3	3.9				0.0	13.8	17.6	13.0	7.2	0.0
Prop In Lane	0.11		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	977	1789	827				0	688	298	247	1945	0
V/C Ratio(X)	0.57	0.52	0.08				0.00	0.67	0.83	0.89	0.47	0.00
Avail Cap(c_a), veh/h	977	1789	827				0	808	350	463	2720	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.16	0.16	0.16				0.00	1.00	1.00	0.49	0.49	0.00
Uniform Delay (d), s/veh	34.1	32.8	23.2				0.0	40.5	42.0	38.9	9.0	0.0
Incr Delay (d2), s/veh	0.4	0.2	0.0				0.0	1.9	13.5	2.2	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
%ile BackOfQ(50%),veh/ft	5.2	12.5	1.5				0.0	5.9	7.4	4.9	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	33.0	23.2				0.0	42.4	55.5	41.1	9.0	0.0
LnGrp LOS	C	C	C				A	D	E	D	A	A
Approach Vol, veh/h	1553						709				1125	
Approach Delay, s/veh	33.1						47.0				15.3	
Approach LOS	C						D				B	
Timer - Assigned Phs	2		4				7		8			
Phs Duration (G+Y+Rc), s	62.7		47.3				19.7		27.6			
Change Period (Y+Rc), s	4.9		5.4				4.4		* 5.4			
Max Green Setting (Gmax), s	41.1		58.6				28.6		* 26			
Max Q Clear Time (g_c+I1), s	32.2		9.2				15.0		19.6			
Green Ext Time (p_c), s	7.2		5.8				0.2		2.6			

Intersection Summary

HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1866	46	0	0	0	0	0	0	279	504	0
Future Volume (veh/h)	0	1866	46	0	0	0	0	0	0	279	504	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2051	51							307	554	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2937	73							584	1166	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5289	127							1732	3624	0
Grp Volume(v), veh/h	0	1362	740							316	545	0
Grp Sat Flow(s),veh/h/ln	0	1702	1844							1784	1702	0
Q Serve(g_s), s	0.0	41.1	41.2							18.4	16.5	0.0
Cycle Q Clear(g_c), s	0.0	41.1	41.2							18.4	16.5	0.0
Prop In Lane	0.00		0.07							0.97		0.00
Lane Grp Cap(c), veh/h	0	1953	1058							602	1148	0
V/C Ratio(X)	0.00	0.70	0.70							0.53	0.47	0.00
Avail Cap(c_a), veh/h	0	1953	1058							602	1148	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	35.7	35.7							40.6	39.7	0.0
Incr Delay (d2), s/veh	0.0	2.1	3.9							3.3	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.3	21.4							9.4	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	37.8	39.6							43.8	41.1	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2102									861	
Approach Delay, s/veh		38.4									42.1	
Approach LOS		D									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		68.0		42.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		63.1		37.1								
Max Q Clear Time (g_c+l1), s		43.2		20.4								
Green Ext Time (p_c), s		6.9		2.3								
Intersection Summary												
HCM 6th Ctrl Delay			39.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	71	2388	0	0	0	0	0	202	255	0	0	0
Future Volume (veh/h)	71	2388	0	0	0	0	0	202	255	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.95			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	78	2624	0				0	222	280			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	91	3266	0				0	486	411			
Arrive On Green	0.21	0.21	0.00				0.00	0.27	0.27			
Sat Flow, veh/h	143	5293	0				0	1870	1502			
Grp Volume(v), veh/h	1017	1685	0				0	222	280			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1502			
Q Serve(g_s), s	57.8	51.4	0.0				0.0	11.4	18.3			
Cycle Q Clear(g_c), s	57.8	51.4	0.0				0.0	11.4	18.3			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1187	2169	0				0	486	411			
V/C Ratio(X)	0.86	0.78	0.00				0.00	0.46	0.68			
Avail Cap(c_a), veh/h	1187	2169	0				0	486	411			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	38.6	36.1	0.0				0.0	33.2	35.7			
Incr Delay (d2), s/veh	8.0	2.8	0.0				0.0	3.1	8.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.4	24.2	0.0				0.0	5.4	7.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	38.9	0.0				0.0	36.2	44.5			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h	2702					502						
Approach Delay, s/veh	41.8					40.8						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	75.0					35.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	70.1					30.1						
Max Q Clear Time (g_c+I1), s	59.8					20.3						
Green Ext Time (p_c), s	9.6					2.4						
Intersection Summary												
HCM 6th Ctrl Delay			41.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	2920	73	0	0	0	0	0	0	350	408	0
Future Volume (veh/h)	0	2920	73	0	0	0	0	0	0	350	408	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3174	79							380	443	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3498	86							406	811	0
Arrive On Green	0.00	0.23	0.23							0.08	0.08	0.00
Sat Flow, veh/h	0	5292	126							1781	3647	0
Grp Volume(v), veh/h	0	2099	1154							380	443	0
Grp Sat Flow(s),veh/h/ln	0	1702	1846							1781	1777	0
Q Serve(g_s), s	0.0	66.0	67.1							23.3	13.2	0.0
Cycle Q Clear(g_c), s	0.0	66.0	67.1							23.3	13.2	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	2324	1260							406	811	0
V/C Ratio(X)	0.00	0.90	0.92							0.93	0.55	0.00
Avail Cap(c_a), veh/h	0	2324	1260							406	811	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	39.1	39.5							50.0	45.4	0.0
Incr Delay (d2), s/veh	0.0	6.3	11.8							30.9	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	32.0	37.1							14.7	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	45.4	51.3							81.0	48.0	0.0
LnGrp LOS	A	D	D							F	D	A
Approach Vol, veh/h		3253									823	
Approach Delay, s/veh		47.5									63.2	
Approach LOS		D									E	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		80.0	30.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		75.1	25.1									
Max Q Clear Time (g_c+l1), s		69.1	25.3									
Green Ext Time (p_c), s		5.9	0.0									
Intersection Summary												
HCM 6th Ctrl Delay			50.7									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	73	2848	0	0	0	0	0	111	66	0	0	0
Future Volume (veh/h)	73	2848	0	0	0	0	0	111	66	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	86	3351	0				0	131	78			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	91	3783	0				0	385	216			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	124	5313	0				0	2289	1230			
Grp Volume(v), veh/h	1294	2143	0				0	104	105			
Grp Sat Flow(s),veh/h/ln	1864	1702	0				0	1777	1649			
Q Serve(g_s), s	75.0	66.2	0.0				0.0	5.7	6.1			
Cycle Q Clear(g_c), s	75.0	66.2	0.0				0.0	5.7	6.1			
Prop In Lane	0.07		0.00				0.00		0.75			
Lane Grp Cap(c), veh/h	1371	2504	0				0	312	289			
V/C Ratio(X)	0.94	0.86	0.00				0.00	0.34	0.36			
Avail Cap(c_a), veh/h	1371	2504	0				0	312	289			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	39.4	36.1	0.0				0.0	39.7	39.9			
Incr Delay (d2), s/veh	14.1	4.0	0.0				0.0	2.9	3.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	42.6	31.4	0.0				0.0	2.7	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	40.1	0.0				0.0	42.6	43.4			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h		3437						209				
Approach Delay, s/veh		45.2						43.0				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		85.8						24.2				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		80.9						19.3				
Max Q Clear Time (g_c+I1), s		77.0						8.1				
Green Ext Time (p_c), s		3.9						0.9				
Intersection Summary												
HCM 6th Ctrl Delay			45.0									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	21	1100	924	49	147	145
Future Volume (veh/h)	21	1100	924	49	147	145
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	23	1196	1004	53	160	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	32	3938	3562	188	412	189
Arrive On Green	0.02	0.79	1.00	1.00	0.12	0.12
Sat Flow, veh/h	1781	5149	5012	256	3456	1585
Grp Volume(v), veh/h	23	1196	688	369	160	158
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1780	1728	1585
Q Serve(g_s), s	1.5	7.8	0.0	0.0	5.0	11.5
Cycle Q Clear(g_c), s	1.5	7.8	0.0	0.0	5.0	11.5
Prop In Lane	1.00			0.14	1.00	1.00
Lane Grp Cap(c), veh/h	32	3938	2442	1308	412	189
V/C Ratio(X)	0.72	0.30	0.28	0.28	0.39	0.84
Avail Cap(c_a), veh/h	145	3938	2442	1308	1174	539
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	57.6	3.4	0.0	0.0	48.0	50.8
Incr Delay (d2), s/veh	9.9	0.2	0.3	0.5	0.2	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	1.8	0.1	0.2	2.2	9.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.5	3.6	0.3	0.5	48.2	54.5
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1219	1057		318	
Approach Delay, s/veh		4.8	0.4		51.3	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		99.0		19.0	6.5	92.5
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 67		40.1	9.6	53.2
Max Q Clear Time (g_c+I1), s		9.8		13.5	3.5	2.0
Green Ext Time (p_c), s		29.0		0.6	0.0	21.1

Intersection Summary

HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	101	1138	18	17	916	11	0	13	27	85	0	20
Future Volume (veh/h)	101	1138	18	17	916	11	0	13	27	85	0	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	1308	21	20	1053	0	0	15	31	98	0	23
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	684	3541	57	60	1690		62	19	39	214	0	98
Arrive On Green	0.77	1.00	1.00	0.03	0.34	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5053	81	1781	4985	1585	1781	541	1117	3456	0	1577
Grp Volume(v), veh/h	116	860	469	20	1053	0	0	0	46	98	0	23
Grp Sat Flow(s), veh/h/ln	1781	1662	1811	1781	1662	1585	1781	0	1658	1728	0	1577
Q Serve(g_s), s	2.1	0.0	0.0	1.3	20.9	0.0	0.0	0.0	3.3	3.2	0.0	1.6
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.3	20.9	0.0	0.0	0.0	3.3	3.2	0.0	1.6
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	684	2329	1269	60	1690		62	0	58	214	0	98
V/C Ratio(X)	0.17	0.37	0.37	0.33	0.62		0.00	0.00	0.80	0.46	0.00	0.24
Avail Cap(c_a), veh/h	684	2329	1269	100	1690		110	0	103	999	0	456
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.7	0.0	0.0	55.7	32.7	0.0	0.0	0.0	56.5	53.4	0.0	52.7
Incr Delay (d2), s/veh	0.0	0.4	0.8	1.2	1.7	0.0	0.0	0.0	9.0	0.6	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 BackOfQ(50%), veh/ln	0.8	0.1	0.3	0.6	8.3	0.0	0.0	0.0	1.5	1.4	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.7	0.4	0.8	56.9	34.4	0.0	0.0	0.0	65.6	54.0	0.0	53.1
LnGrp LOS	A	A	A	E	C		A	A	E	D	A	D
Approach Vol, veh/h	1445			1073			46			121		
Approach Delay, s/veh	1.2			34.8			65.6			53.8		
Approach LOS	A			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.4			12.2	51.0	45.8		9.0				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	60.6	50.1		34.1	16.6	* 40		7.3				
Max Q Clear Time (g_c+I), s	13.3	2.0		5.2	4.1	22.9		5.3				
Green Ext Time (p_c), s	0.0	22.6		0.3	0.1	9.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.1

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	1391	132	287	1034	0	145	32	336	0	24	148
Future Volume (veh/h)	185	1391	132	287	1034	0	145	32	336	0	24	148
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	199	1496	142	309	1112	0	156	34	0	0	26	159
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	767	3002	1056	365	1687	0	222	120		0	111	150
Arrive On Green	0.43	0.60	0.60	0.11	0.27	0.00	0.06	0.06	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2536
Grp Volume(v), veh/h	199	1496	142	309	1112	0	156	34	0	0	26	159
Grp Sat Flow(s), veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1268
Q Serve(g_s), s	8.4	20.1	3.9	10.4	18.6	0.0	5.2	2.0	0.0	0.0	1.6	7.0
Cycle Q Clear(g_c), s	8.4	20.1	3.9	10.4	18.6	0.0	5.2	2.0	0.0	0.0	1.6	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	767	3002	1056	365	1687	0	222	120		0	111	150
V/C Ratio(X)	0.26	0.50	0.13	0.85	0.66	0.00	0.70	0.28		0.00	0.23	1.06
Avail Cap(c_a), veh/h	767	3002	1056	398	1687	0	1084	586		0	111	150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	13.3	7.2	51.8	38.3	0.0	54.1	52.6	0.0	0.0	52.9	55.5
Incr Delay (d2), s/veh	0.1	0.6	0.3	1.4	0.2	0.0	1.5	0.5	0.0	0.0	1.1	89.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.4	6.9	1.6	4.4	6.9	0.0	2.3	1.0	0.0	0.0	0.8	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.6	13.9	7.5	53.3	38.5	0.0	55.6	53.1	0.0	0.0	54.0	144.9
LnGrp LOS	C	B	A	D	D	A	E	D		A	D	F
Approach Vol, veh/h	1837			1421			190			185		
Approach Delay, s/veh	14.3			41.7			55.2			132.1		
Approach LOS	B			D			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	76.8		11.9	56.5	37.1		12.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	3.6	40.5		7.0	22.7	* 32		37.0				
Max Q Clear Time (g_c+I), s	12.4	22.1		9.0	10.4	20.6		7.2				
Green Ext Time (p_c), s	0.1	14.7		0.0	0.2	8.4		0.4				

Intersection Summary

HCM 6th Ctrl Delay 33.1

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	0	42	5	0	20	22	384	14	14	405	65
Future Volume (veh/h)	82	0	42	5	0	20	22	384	14	14	405	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	29	45	5	12	13	23	409	15	15	431	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	55	85	16	38	44	201	1104	40	202	969	154
Arrive On Green	0.08	0.08	0.08	0.03	0.03	0.03	0.11	0.32	0.32	0.11	0.32	0.32
Sat Flow, veh/h	1781	647	1004	542	1301	1539	1781	3493	128	1781	3061	486
Grp Volume(v), veh/h	66	0	74	17	0	13	23	208	216	15	249	251
Grp Sat Flow(s),veh/h/ln	1781	0	1651	1843	0	1539	1781	1777	1844	1781	1777	1771
Q Serve(g_s), s	1.2	0.0	1.5	0.3	0.0	0.3	0.4	3.2	3.2	0.3	3.9	4.0
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.3	0.0	0.3	0.4	3.2	3.2	0.3	3.9	4.0
Prop In Lane	1.00		0.61	0.29		1.00	1.00		0.07	1.00		0.27
Lane Grp Cap(c), veh/h	151	0	140	53	0	44	201	562	583	202	563	561
V/C Ratio(X)	0.44	0.00	0.53	0.32	0.00	0.29	0.11	0.37	0.37	0.07	0.44	0.45
Avail Cap(c_a), veh/h	254	0	236	1525	0	1273	203	1572	1631	203	1572	1567
HCM Platoon Ratio	1.00	1.00	1.00	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	15.2	0.0	15.4	16.7	0.0	16.7	14.0	9.3	9.3	13.9	9.5	9.5
Incr Delay (d2), s/veh	1.5	0.0	2.3	1.3	0.0	1.3	0.1	0.3	0.3	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.6	0.1	0.0	0.1	0.1	0.9	0.9	0.1	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	0.0	17.6	17.9	0.0	18.0	14.1	9.6	9.6	13.9	9.9	9.9
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	140		30			447			515			
Approach Delay, s/veh	17.2		18.0			9.8			10.1			
Approach LOS	B		B			A			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	15.1	7.0		8.0	15.1	5.0					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	31.0	31.0	5.0		4.0	31.0	29.0					
Max Q Clear Time (g_c+I), s	12.3	5.2	3.5		2.4	6.0	2.3					
Green Ext Time (p_c), s	0.0	2.0	0.1		0.0	2.4	0.0					

Intersection Summary

HCM 6th Ctrl Delay 11.0

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	259	17	9	155	175	279
Future Volume (veh/h)	259	17	9	155	175	279
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	299	0	10	0	192	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	867	455	662		344	
Arrive On Green	0.24	0.00	0.35	0.00	0.10	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	299	0	10	0	192	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	2.7	0.0	0.1	0.0	2.1	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.1	0.0	2.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	867	455	662		344	
V/C Ratio(X)	0.34	0.00	0.02		0.56	
Avail Cap(c_a), veh/h	991	520	662		1136	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.4	0.0	8.3	0.0	17.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.9	0.0	0.0	0.0	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.6	0.0	8.3	0.0	18.4	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		299	10	A	192	A
Approach Delay, s/veh		12.6	8.3		18.4	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.6		7.9		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+I1), s		4.7		4.1		2.1
Green Ext Time (p_c), s		0.5		0.4		0.0

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection

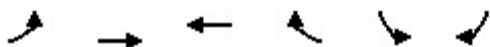
Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	9	194	160	10	1	2
Future Vol, veh/h	9	194	160	10	1	2
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	226	186	12	1	2

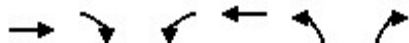
Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	198	0	0 325 99
Stage 1	-	-	- 192 -
Stage 2	-	-	- 133 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	1372	-	- 644 937
Stage 1	-	-	- 822 -
Stage 2	-	-	- 879 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1372	-	- 639 937
Mov Cap-2 Maneuver	-	-	- 639 -
Stage 1	-	-	- 815 -
Stage 2	-	-	- 879 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1372	-	-	-	811
HCM Lane V/C Ratio	0.008	-	-	-	0.004
HCM Control Delay (s)	7.6	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Volume (veh/h)	0	2130	2460	0	0	0
Future Volume (veh/h)	0	2130	2460	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2315	2674	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7126
Grp Volume(v), veh/h	0	2315	2674	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	15.2	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	15.2	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7732	7950
V/C Ratio(X)	0.00	0.90	1.04	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7732	7950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.7	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	5.6	28.9	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.5	9.4	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	18.2	42.4	0.0	8.1	8.1
LnGrp LOS	A	B	F	A	A	A
Approach Vol, veh/h		2315	2674	1077	1255	04
Approach Delay, s/veh		18.2	42.4		8.1	
Approach LOS		B	D		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				17.2	2.0	20.0
Green Ext Time (p_c), s				0.8	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3372	15	28	890	14	38
Future Volume (veh/h)	3372	15	28	890	14	38
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	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3626	16	30	957	15	41
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	5128	1292	73	5495	69	55
Arrive On Green	0.82	0.82	0.04	1.00	0.04	0.04
Sat Flow, veh/h	6537	1583	3456	6537	1781	1427
Grp Volume(v), veh/h	3626	16	30	957	15	41
Grp Sat Flow(s), veh/h/ln	1570	1583	1728	1570	1781	1427
Q Serve(g_s), s	29.6	0.2	1.0	0.0	1.0	3.4
Cycle Q Clear(g_c), s	29.6	0.2	1.0	0.0	1.0	3.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	5128	1292	73	5495	69	55
V/C Ratio(X)	0.71	0.01	0.41	0.17	0.22	0.74
Avail Cap(c_a), veh/h	5128	1292	117	5495	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.31	0.31	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.7	2.0	55.8	0.0	55.0	56.1
Incr Delay (d2), s/veh	0.3	0.0	1.4	0.1	0.6	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	0.4	0.0	0.4	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.0	2.0	57.1	0.1	55.6	63.3
LnGrp LOS	A	A	E	A	E	E
Approach Vol, veh/h	3642			987	56	
Approach Delay, s/veh	5.0			1.8	61.2	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.9	101.6		108.5	9.5	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	4.0	67.4		75.8	32.0	
Max Q Clear Time (g_c+I), s	13.0	31.6		2.0	5.4	
Green Ext Time (p_c), s	0.0	35.7		20.5	0.1	
Intersection Summary						
HCM 6th Ctrl Delay			5.0			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2026 with Project (Alt 4)
Timing Plan: PM PEAK



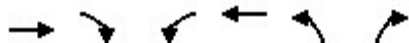
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘			↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	
Traffic Volume (veh/h)	9	3302	0	11	579	60	0	0	0	5	0	5
Future Volume (veh/h)	9	3302	0	11	579	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	3513	0	12	616	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4067	0	60	4904	499	0	49	0	107	0	41
Arrive On Green	0.02	1.00	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	5836	594	0	1870	0	1741	0	1557
Grp Volume(v), veh/h	10	3513	0	12	495	185	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1719	0	1870	0	1741	0	1557
Q Serve(g_s), s	0.7	0.0	0.0	0.8	2.2	2.3	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.8	2.2	2.3	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.35	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4067	0	60	3959	1445	0	49	0	107	0	41
V/C Ratio(X)	0.59	0.86	0.00	0.20	0.12	0.13	0.00	0.00	0.00	0.05	0.00	0.12
Avail Cap(c_a), veh/h	60	4067	0	60	3959	1445	0	507	0	533	0	422
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.00	0.99	0.99	0.99	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	0.0	55.4	1.7	1.7	0.0	0.0	0.0	56.1	0.0	56.1
Incr Delay (d2), s/veh	7.4	1.7	0.0	0.6	0.1	0.2	0.0	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 BackOfQ(50%),veh/ln	0.3	0.6	0.0	0.3	0.3	0.4	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	1.7	0.0	56.0	1.7	1.9	0.0	0.0	0.0	56.2	0.0	56.6
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3523			692			0			10		
Approach Delay, s/veh	1.9			2.7			0.0			56.4		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	101.6		8.0	5.5	104.5		8.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4	67.4		32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	12.8	2.0		2.4	2.7	4.3		0.0				
Green Ext Time (p_c), s	0.0	65.1		0.0	0.0	10.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	2.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3281	2	14	722	0	18
Future Volume (veh/h)	3281	2	14	722	0	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3418	2	15	752	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3514	2	25	3753	0	162
Arrive On Green	0.68	0.68	0.01	0.75	0.00	0.13
Sat Flow, veh/h	5310	3	1781	5149	0	1293
Grp Volume(v), veh/h	2207	1213	15	752	0	20
Grp Sat Flow(s),veh/h/ln	1662	1825	1781	1662	0	1362
Q Serve(g_s), s	49.5	49.5	0.7	3.5	0.0	1.0
Cycle Q Clear(g_c), s	49.5	49.5	0.7	3.5	0.0	1.0
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2270	1247	25	3753	0	171
V/C Ratio(X)	0.97	0.97	0.59	0.20	0.00	0.12
Avail Cap(c_a), veh/h	2270	1247	90	3935	0	312
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	11.8	38.7	2.8	0.0	30.6
Incr Delay (d2), s/veh	13.3	19.5	8.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lt	5.4	19.1	0.3	0.6	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.1	31.4	46.6	2.9	0.0	30.9
LnGrp LOS	C	C	D	A	A	C
Approach Vol, veh/h	3420			767	20	
Approach Delay, s/veh	27.3			3.8	30.9	
Approach LOS	C			A	C	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	55.5	59.1		64.6	14.3	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	40.0	53.9		62.3	18.1	
Max Q Clear Time (g_c+I12, s)	12.5	51.5		5.5	3.0	
Green Ext Time (p_c), s	0.0	2.4		15.4	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			23.0			
HCM 6th LOS			C			

Intersection						
Int Delay, s/veh	237.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	445	0	0	2285	417
Future Vol, veh/h	0	445	0	0	2285	417
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	473	0	0	2431	444

Major/Minor	Minor2		Major2	
Conflicting Flow All	2653	1441	-	0
Stage 1	2653	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	41	~ 104	-	-
Stage 1	21	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	41	~ 104	-	-
Mov Cap-2 Maneuver	41	-	-	-
Stage 1	21	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$	1681.2	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	104	-	-
HCM Lane V/C Ratio	-	4.552	-	-
HCM Control Delay (s)	\$	1681.2	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	49.7	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2026 with Project (Alt 4)

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	107	711	28	19	699	338	34	58	40	227	28	153
Future Volume (veh/h)	107	711	28	19	699	338	34	58	40	227	28	153
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	799	31	21	785	380	38	65	45	255	31	172
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1277	393	578	2565	793	197	337	251	374	509	447
Arrive On Green	0.03	0.08	0.08	0.32	0.50	0.50	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	5106	1570	1781	5106	1577	527	1178	877	1267	1777	1560
Grp Volume(v), veh/h	120	799	31	21	785	380	70	0	78	255	31	172
Grp Sat Flow(s),veh/h/ln	1781	1702	1570	1781	1702	1577	1068	0	1514	1267	1777	1560
Q Serve(g_s), s	8.0	18.2	2.2	1.0	10.8	18.9	2.7	0.0	4.6	22.7	1.5	10.6
Cycle Q Clear(g_c), s	8.0	18.2	2.2	1.0	10.8	18.9	13.3	0.0	4.6	27.4	1.5	10.6
Prop In Lane	1.00		1.00	1.00		1.00	0.54		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	148	1277	393	578	2565	793	352	0	434	374	509	447
V/C Ratio(X)	0.81	0.63	0.08	0.04	0.31	0.48	0.20	0.00	0.18	0.68	0.06	0.38
Avail Cap(c_a), veh/h	276	2183	671	578	2565	793	502	0	594	508	697	612
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	49.6	42.3	27.7	17.6	19.6	35.5	0.0	32.2	42.5	31.1	34.3
Incr Delay (d2), s/veh	4.0	2.3	0.4	0.0	0.3	2.0	0.1	0.0	0.1	6.2	0.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.5	0.9	0.4	4.1	7.0	1.7	0.0	1.7	7.7	0.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.4	51.9	42.7	27.7	17.8	21.6	35.6	0.0	32.3	48.7	31.2	35.9
LnGrp LOS	E	D	D	C	B	C	D	A	C	D	C	D
Approach Vol, veh/h		950			1186			148			458	
Approach Delay, s/veh		52.8			19.2			33.8			42.7	
Approach LOS		D			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	45.0	35.7		39.3	14.3	66.4		39.3				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	6.6	* 51		47.1	18.6	38.9		47.1				
Max Q Clear Time (g_c+I1), s	3.0	20.2		29.4	10.0	20.9		15.3				
Green Ext Time (p_c), s	0.0	9.9		4.6	0.1	11.9		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	50	521	1	0	483	407	1	0	0	313	0	33
Future Volume (veh/h)	50	521	1	0	483	407	1	0	0	313	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	573	1	0	531	0	1	0	0	378	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	906	2	842	2170		52	0	46	516	271	0
Arrive On Green	0.04	0.17	0.17	0.00	0.20	0.00	0.03	0.00	0.00	0.14	0.00	0.00
Sat Flow, veh/h	1781	5264	9	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	55	371	203	0	531	0	1	0	0	378	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	3.7	12.1	12.1	0.0	15.1	0.0	0.1	0.0	0.0	12.2	0.0	0.0
Cycle Q Clear(g_c), s	3.7	12.1	12.1	0.0	15.1	0.0	0.1	0.0	0.0	12.2	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	71	586	322	842	2170		52	0	46	516	271	0
V/C Ratio(X)	0.78	0.63	0.63	0.00	0.24		0.02	0.00	0.00	0.73	0.00	0.00
Avail Cap(c_a), veh/h	113	814	447	842	2170		445	0	396	1098	577	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.96	0.00	1.00	0.00	0.00	0.86	0.00	0.00
Uniform Delay (d), s/veh	57.1	46.1	46.1	0.0	24.7	0.0	56.6	0.0	0.0	49.1	0.0	0.0
Incr Delay (d2), s/veh	6.7	5.1	9.1	0.0	0.3	0.0	0.1	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 BackOfQ(50%),veh/ln	1.7	5.4	6.3	0.0	7.2	0.0	0.0	0.0	0.0	5.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	51.3	55.3	0.0	24.9	0.0	56.7	0.0	0.0	49.8	0.0	0.0
LnGrp LOS	E	D	E	A	C		E	A	A	D	A	A
Approach Vol, veh/h	629			531			1			378		
Approach Delay, s/veh	53.7			24.9			56.7			49.8		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	62.6	25.8		23.3	9.2	79.2		8.4				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 29		37.0	7.6	24.3		30.0				
Max Q Clear Time (g_c+I), s	14.1	14.1		14.2	5.7	17.1		2.1				
Green Ext Time (p_c), s	0.0	6.5		0.7	0.0	3.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	253	127	77	372	184	198	881	77	120	816	185
Future Volume (veh/h)	284	253	127	77	372	184	198	881	77	120	816	185
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	269	135	82	396	196	211	937	82	128	868	197
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	636	309	101	528	307	257	1615	141	172	1649	731
Arrive On Green	0.18	0.28	0.28	0.06	0.15	0.15	0.07	0.49	0.49	0.05	0.46	0.46
Sat Flow, veh/h	1781	2304	1120	1781	3554	1537	3456	3304	289	3456	3554	1576
Grp Volume(v), veh/h	302	205	199	82	396	196	211	504	515	128	868	197
Grp Sat Flow(s),veh/h/ln	1781	1777	1647	1781	1777	1537	1728	1777	1816	1728	1777	1576
Q Serve(g_s), s	25.1	14.2	14.9	6.8	16.0	11.5	9.0	30.4	30.4	5.5	26.0	6.1
Cycle Q Clear(g_c), s	25.1	14.2	14.9	6.8	16.0	11.5	9.0	30.4	30.4	5.5	26.0	6.1
Prop In Lane	1.00		0.68	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	323	490	454	101	528	307	257	868	888	172	1649	731
V/C Ratio(X)	0.94	0.42	0.44	0.81	0.75	0.64	0.82	0.58	0.58	0.74	0.53	0.27
Avail Cap(c_a), veh/h	387	590	547	160	734	396	544	868	888	203	1649	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	44.5	44.7	69.9	61.2	27.6	68.4	27.4	27.4	70.3	28.5	7.0
Incr Delay (d2), s/veh	25.7	0.2	0.2	6.7	1.5	0.8	2.5	2.8	2.8	9.1	1.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	6.4	6.2	3.3	7.4	4.3	4.1	13.6	13.9	2.7	11.4	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	44.7	45.0	76.6	62.7	28.4	70.9	30.2	30.1	79.5	29.7	7.9
LnGrp LOS	F	D	D	E	E	C	E	C	C	E	C	A
Approach Vol, veh/h	706			674			1230			1193		
Approach Delay, s/veh	62.6			54.4			37.2			31.4		
Approach LOS	E			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.9	78.6	12.9	46.6	15.5	74.9	32.4	27.2				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	8.8	* 59	13.5	49.8	23.6	43.8	32.6	* 31				
Max Q Clear Time (g_c+11), s	5	32.4	8.8	16.9	11.0	28.0	27.1	18.0				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.9	0.1	2.4	0.1	1.0				

Intersection Summary

HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	129	55	337	463	60	191	287	61	60	272	83
Future Volume (veh/h)	93	129	55	337	463	60	191	287	61	60	272	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	139	59	362	498	65	205	309	66	65	292	89
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	760	336	407	599	78	246	963	401	83	650	186
Arrive On Green	0.07	0.21	0.21	0.23	0.37	0.37	0.14	0.26	0.26	0.05	0.17	0.17
Sat Flow, veh/h	1781	3554	1574	1781	1620	211	1781	3741	1559	1781	3912	1119
Grp Volume(v), veh/h	100	139	59	362	0	563	205	309	66	65	252	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1781	0	1831	1781	1870	1559	1781	1702	1627
Q Serve(g_s), s	4.1	2.4	2.3	14.7	0.0	20.9	8.4	5.0	2.5	2.7	5.0	5.4
Cycle Q Clear(g_c), s	4.1	2.4	2.3	14.7	0.0	20.9	8.4	5.0	2.5	2.7	5.0	5.4
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.69
Lane Grp Cap(c), veh/h	128	760	336	407	0	678	246	963	401	83	565	270
V/C Ratio(X)	0.78	0.18	0.18	0.89	0.00	0.83	0.83	0.32	0.16	0.78	0.44	0.48
Avail Cap(c_a), veh/h	236	1566	694	561	0	1142	324	1724	718	236	1400	669
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	24.1	24.0	28.0	0.0	21.5	31.4	22.5	21.6	35.3	28.1	28.3
Incr Delay (d2), s/veh	3.8	0.0	0.1	10.3	0.0	2.7	10.5	0.4	0.4	5.8	1.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.0	0.8	7.2	0.0	9.0	4.2	2.1	0.9	1.3	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	24.1	24.1	38.3	0.0	24.2	41.9	22.9	21.9	41.1	29.1	30.6
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h	298			925			580			446		
Approach Delay, s/veh	28.8			29.7			29.5			31.3		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.9	24.6	21.5	20.9	14.7	17.7	9.8	32.6				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	29.9	34.5	23.6	33.0	13.6	30.8	9.9	46.7				
Max Q Clear Time (g_c+I4, s)	14.7	7.0	16.7	4.4	10.4	7.4	6.1	22.9				
Green Ext Time (p_c), s	0.0	3.9	0.4	0.7	0.1	3.9	0.0	4.2				

Intersection Summary

HCM 6th Ctrl Delay 29.8

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	42	38	250	7	7	42	489	373	103	595	18
Future Volume (veh/h)	26	42	38	250	7	7	42	489	373	103	595	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	46	42	275	8	8	46	537	410	113	654	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	528	264	241	462	251	251	65	1274	558	145	2050	62
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.04	0.36	0.36	0.08	0.40	0.40
Sat Flow, veh/h	1393	899	821	1306	857	857	1781	3554	1556	1781	5086	155
Grp Volume(v), veh/h	29	0	88	275	0	16	46	537	410	113	437	237
Grp Sat Flow(s),veh/h/ln	1393	0	1720	1306	0	1713	1781	1777	1556	1781	1702	1837
Q Serve(g_s), s	0.8	0.0	2.1	11.1	0.0	0.4	1.4	6.4	12.8	3.5	4.9	4.9
Cycle Q Clear(g_c), s	1.2	0.0	2.1	13.2	0.0	0.4	1.4	6.4	12.8	3.5	4.9	4.9
Prop In Lane	1.00		0.48	1.00		0.50	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	528	0	505	462	0	503	65	1274	558	145	1372	740
V/C Ratio(X)	0.05	0.00	0.17	0.59	0.00	0.03	0.71	0.42	0.74	0.78	0.32	0.32
Avail Cap(c_a), veh/h	914	0	980	805	0	952	198	1477	647	211	1397	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(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	14.5	0.0	14.7	19.6	0.0	14.1	26.6	13.5	15.6	25.1	11.4	11.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.5	0.0	0.0	5.1	0.4	4.7	6.1	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 BackOfQ(50%),veh/ln	0.3	0.0	0.8	3.2	0.0	0.1	0.7	2.2	4.6	1.6	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.5	0.0	14.7	20.1	0.0	14.1	31.7	13.9	20.3	31.3	11.5	11.7
LnGrp LOS	B	A	B	C	A	B	C	B	C	C	B	B
Approach Vol, veh/h	117				291		993				787	
Approach Delay, s/veh	14.7				19.7		17.4				14.4	
Approach LOS	B				B		B				B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.9	25.7	21.2		6.4	28.2	21.2					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	6.6	* 23	* 32		6.2	22.9	* 31					
Max Q Clear Time (g_c+1.5), s	14.5	14.8	4.1		3.4	6.9	15.2					
Green Ext Time (p_c), s	0.0	4.8	0.4		0.0	3.8	0.5					
Intersection Summary												
HCM 6th Ctrl Delay			16.5									
HCM 6th LOS			B									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	567	751	67	76	900	37	130	246	69	43	142	641
Future Volume (veh/h)	567	751	67	76	900	37	130	246	69	43	142	641
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	610	808	72	82	968	40	140	265	74	46	153	689
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	668	1670	149	140	1364	56	162	474	380	59	683	1014
Arrive On Green	0.19	0.51	0.51	0.08	0.39	0.39	0.09	0.25	0.25	0.03	0.19	0.19
Sat Flow, veh/h	3456	3296	294	1781	3477	144	1781	1870	1499	1781	3554	2473
Grp Volume(v), veh/h	610	436	444	82	495	513	140	265	74	46	153	689
Grp Sat Flow(s),veh/h/ln	1728	1777	1812	1781	1777	1844	1781	1870	1499	1781	1777	1236
Q Serve(g_s), s	25.9	24.0	24.0	6.7	35.2	35.2	11.6	18.5	5.8	3.8	5.5	25.0
Cycle Q Clear(g_c), s	25.9	24.0	24.0	6.7	35.2	35.2	11.6	18.5	5.8	3.8	5.5	25.0
Prop In Lane	1.00		0.16	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	668	901	919	140	697	723	162	474	380	59	683	1014
V/C Ratio(X)	0.91	0.48	0.48	0.59	0.71	0.71	0.87	0.56	0.19	0.78	0.22	0.68
Avail Cap(c_a), veh/h	751	901	919	140	697	723	172	474	380	90	687	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	0.98	0.98	0.98	0.91	0.91	0.91
Uniform Delay (d), s/veh	59.3	24.2	24.2	66.7	38.4	38.4	67.3	48.7	44.0	72.0	51.2	20.8
Incr Delay (d2), s/veh	14.6	1.9	1.8	14.3	5.2	5.0	30.7	1.6	0.3	8.7	0.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	10.4	10.6	3.6	16.1	16.6	6.7	8.8	2.2	1.9	2.5	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.8	26.0	26.0	81.0	43.6	43.4	98.0	50.2	44.2	80.6	51.4	22.7
LnGrp LOS	E	C	C	F	D	D	F	D	D	F	D	C
Approach Vol, veh/h		1490			1090			479			888	
Approach Delay, s/veh		45.6			46.3			63.3			30.6	
Approach LOS		D			D			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	42.9	16.2	81.8	18.5	33.8	33.4	64.6				
Change Period (Y+Rc), s	4.4	4.9	4.4	* 5.8	4.9	* 5	4.4	5.8				
Max Green Setting (Gmax), s	7.6	36.0	11.8	* 76	14.5	* 29	32.6	54.3				
Max Q Clear Time (g_c+I1), s	5.8	20.5	8.7	26.0	13.6	27.0	27.9	37.2				
Green Ext Time (p_c), s	0.0	1.7	0.0	9.2	0.0	1.2	1.1	5.1				

Intersection Summary

HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	759	73	29	169	0	0	0	0	182	217	868
Future Volume (veh/h)	0	759	73	29	169	0	0	0	0	182	217	868
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	853	82	33	190	0				204	244	975
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1482	142	58	1838	0				614	804	1073
Arrive On Green	0.00	0.45	0.45	0.03	0.52	0.00				0.40	0.40	0.40
Sat Flow, veh/h	0	3364	314	1781	3647	0				1546	2024	2701
Grp Volume(v), veh/h	0	463	472	33	190	0				237	211	975
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1793	1777	1351
Q Serve(g_s), s	0.0	27.0	27.0	2.6	3.8	0.0				12.8	11.4	47.7
Cycle Q Clear(g_c), s	0.0	27.0	27.0	2.6	3.8	0.0				12.8	11.4	47.7
Prop In Lane	0.00		0.17	1.00		0.00				0.86		1.00
Lane Grp Cap(c), veh/h	0	805	819	58	1838	0				712	706	1073
V/C Ratio(X)	0.00	0.58	0.58	0.57	0.10	0.00				0.33	0.30	0.91
Avail Cap(c_a), veh/h	0	805	819	109	1838	0				712	706	1073
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.58	0.58	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.3	28.3	66.7	17.2	0.0				29.3	28.9	39.8
Incr Delay (d2), s/veh	0.0	2.5	2.5	1.9	0.1	0.0				1.3	1.1	12.8
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 BackOfQ(50%),veh/ln	0.0	11.8	12.0	1.2	1.6	0.0				5.9	5.2	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.9	30.8	68.6	17.3	0.0				30.6	30.0	52.6
LnGrp LOS	A	C	C	E	B	A				C	C	D
Approach Vol, veh/h		935			223						1423	
Approach Delay, s/veh		30.8			24.9						45.6	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	70.0			61.0		79.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	60.0	* 61		55.6		72.4						
Max Q Clear Time (g_c+I14), s	29.0			49.7		5.8						
Green Ext Time (p_c), s	0.0	1.8		1.6		0.4						

Intersection Summary

HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	444	0	0	1353	813
Future Volume (veh/h)	0	444	0	0	1353	813
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				0.99
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	493			1503	903
Peak Hour Factor	0.90	0.90			0.90	0.90
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2937	1360
Arrive On Green	0.00	0.00			0.86	0.86
Sat Flow, veh/h	0				3572	1576
Grp Volume(v), veh/h	0.0				1503	903
Grp Sat Flow(s),veh/h/ln					1702	1576
Q Serve(g_s), s					3.6	6.0
Cycle Q Clear(g_c), s					3.6	6.0
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2937	1360
V/C Ratio(X)					0.51	0.66
Avail Cap(c_a), veh/h					3391	1570
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.6	0.7
Incr Delay (d2), s/veh					0.1	0.9
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.7	1.6
LnGrp LOS					A	A
Approach Vol, veh/h					2406	
Approach Delay, s/veh					1.0	
Approach LOS					A	
Timer - Assigned Phs						6
Phs Duration (G+Y+Rc), s						32.8
Change Period (Y+Rc), s						4.5
Max Green Setting (Gmax), s						32.7
Max Q Clear Time (g_c+I1), s						8.0
Green Ext Time (p_c), s						20.3
Intersection Summary						
HCM 6th Ctrl Delay			1.0			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	98	194	78	308	434	83	182	274	121	53	271	76
Future Volume (veh/h)	98	194	78	308	434	83	182	274	121	53	271	76
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		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	209	84	331	467	89	196	295	130	57	291	82
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	826	365	370	556	106	234	1013	420	73	716	189
Arrive On Green	0.08	0.23	0.23	0.21	0.36	0.36	0.13	0.27	0.27	0.04	0.18	0.18
Sat Flow, veh/h	1781	3554	1571	1781	1525	291	1781	3741	1550	1781	3975	1049
Grp Volume(v), veh/h	105	209	84	331	0	556	196	295	130	57	246	127
Grp Sat Flow(s),veh/h/ln	1781	1777	1571	1781	0	1816	1781	1870	1550	1781	1702	1620
Q Serve(g_s), s	4.4	3.7	3.3	13.8	0.0	21.5	8.2	4.8	5.1	2.4	4.9	5.3
Cycle Q Clear(g_c), s	4.4	3.7	3.3	13.8	0.0	21.5	8.2	4.8	5.1	2.4	4.9	5.3
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	134	826	365	370	0	662	234	1013	420	73	613	292
V/C Ratio(X)	0.78	0.25	0.23	0.90	0.00	0.84	0.84	0.29	0.31	0.78	0.40	0.43
Avail Cap(c_a), veh/h	228	1533	677	386	0	945	247	1579	654	212	1370	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(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	34.7	23.9	23.8	29.5	0.0	22.3	32.4	22.1	22.2	36.4	27.7	27.9
Incr Delay (d2), s/veh	3.7	0.1	0.1	21.2	0.0	4.8	19.3	0.3	0.8	6.8	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.5	1.2	7.9	0.0	9.6	4.6	2.0	1.9	1.2	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	24.0	23.9	50.7	0.0	27.0	51.7	22.4	23.0	43.1	28.5	29.7
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h	398			887			621			430		
Approach Delay, s/veh	27.8			35.8			31.8			30.8		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	26.0	20.3	22.7	14.5	19.1	10.2	32.8				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	32.3	16.6	33.0	10.6	30.8	9.8	39.8					
Max Q Clear Time (g_c+14.4), s	7.1	15.8	5.7	10.2	7.3	6.4	23.5					
Green Ext Time (p_c), s	0.0	4.1	0.1	1.1	0.0	3.8	0.0	3.6				

Intersection Summary

HCM 6th Ctrl Delay 32.5

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	34	43	276	10	61	30	485	372	44	644	18
Future Volume (veh/h)	22	34	43	276	10	61	30	485	372	44	644	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	36	45	291	11	64	32	511	392	46	678	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	505	237	297	502	75	434	50	1320	576	66	1938	54
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.03	0.37	0.37	0.04	0.38	0.38
Sat Flow, veh/h	1318	753	941	1311	237	1377	1781	3554	1551	1781	5100	142
Grp Volume(v), veh/h	23	0	81	291	0	75	32	511	392	46	452	245
Grp Sat Flow(s), veh/h/ln	1318	0	1695	1311	0	1613	1781	1777	1551	1781	1702	1839
Q Serve(g_s), s	0.7	0.0	1.9	11.1	0.0	1.8	1.0	5.7	11.4	1.4	5.1	5.1
Cycle Q Clear(g_c), s	2.5	0.0	1.9	12.9	0.0	1.8	1.0	5.7	11.4	1.4	5.1	5.1
Prop In Lane	1.00		0.56	1.00		0.85	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	505	0	534	502	0	508	50	1320	576	66	1294	699
V/C Ratio(X)	0.05	0.00	0.15	0.58	0.00	0.15	0.64	0.39	0.68	0.70	0.35	0.35
Avail Cap(c_a), veh/h	868	0	1000	843	0	929	132	1372	599	132	1294	699
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	14.1	0.0	13.3	17.9	0.0	13.2	25.9	12.4	14.2	25.6	11.9	11.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	4.9	0.3	3.7	4.9	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	3.1	0.0	0.6	0.4	1.9	3.9	0.6	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	0.0	13.3	18.3	0.0	13.3	30.8	12.8	18.0	30.6	12.1	12.2
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	104			366			935			743		
Approach Delay, s/veh	13.5			17.3			15.6			13.3		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	25.7		21.8	5.9	26.2		21.8				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	1.0	* 21		* 32	4.0	20.1		* 31				
Max Q Clear Time (g_c+13, s)	13.4			4.5	3.0	7.1		14.9				
Green Ext Time (p_c), s	0.0	4.1		0.3	0.0	3.6		0.7				

Intersection Summary

HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	536	831	73	101	812	62	85	258	74	75	138	615
Future Volume (veh/h)	536	831	73	101	812	62	85	258	74	75	138	615
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.93	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	547	848	74	103	829	63	87	263	76	77	141	628
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1033	1732	151	200	1093	83	108	301	238	113	596	1252
Arrive On Green	0.30	0.52	0.52	0.11	0.33	0.33	0.06	0.16	0.16	0.06	0.17	0.17
Sat Flow, veh/h	3456	3306	288	1781	3342	254	1781	1870	1478	1781	3554	2497
Grp Volume(v), veh/h	547	456	466	103	441	451	87	263	76	77	141	628
Grp Sat Flow(s),veh/h/ln	1728	1777	1817	1781	1777	1819	1781	1870	1478	1781	1777	1248
Q Serve(g_s), s	18.5	23.0	23.0	7.6	31.1	31.1	6.8	19.2	5.0	5.9	4.8	4.3
Cycle Q Clear(g_c), s	18.5	23.0	23.0	7.6	31.1	31.1	6.8	19.2	5.0	5.9	4.8	4.3
Prop In Lane	1.00		0.16	1.00		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1033	931	952	200	581	595	108	301	238	113	596	1252
V/C Ratio(X)	0.53	0.49	0.49	0.52	0.76	0.76	0.81	0.87	0.32	0.68	0.24	0.50
Avail Cap(c_a), veh/h	1033	931	952	200	581	595	172	413	326	160	759	1367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.84	0.99	0.99	0.99	0.90	0.90	0.90
Uniform Delay (d), s/veh	40.9	21.3	21.3	58.6	42.1	42.1	64.9	57.3	32.2	64.1	50.5	13.1
Incr Delay (d2), s/veh	0.5	1.8	1.8	7.8	7.6	7.5	5.9	14.7	0.9	2.4	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 BackOfQ(50%),veh/ln	7.9	9.8	10.0	3.8	14.6	14.9	3.2	10.3	2.4	2.8	2.2	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	23.2	23.1	66.3	49.8	49.6	70.8	72.0	33.0	66.5	50.8	13.5
LnGrp LOS	D	C	C	E	D	D	E	E	C	E	D	B
Approach Vol, veh/h	1469			995			426			846		
Approach Delay, s/veh	30.0			51.4			64.8			24.5		
Approach LOS	C			D			E			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	3.9	27.4	20.1	78.5	12.9	28.5	47.0	51.6				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	5.2	4.4	5.0	5.2	* 5.8				
Max Green Setting (Gmax), s	12.6	* 31	15.7	61.9	13.5	29.9	31.2	* 46				
Max Q Clear Time (g_c+11), s	9.5	21.2	9.6	25.0	8.8	6.8	20.5	33.1				
Green Ext Time (p_c), s	0.0	1.3	0.1	9.4	0.0	6.0	1.5	3.9				

Intersection Summary

HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	834	99	36	145	0	0	0	0	131	164	833
Future Volume (veh/h)	0	834	99	36	145	0	0	0	0	131	164	833
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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	907	108	39	158	0				142	178	905
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1501	179	71	1951	0				278	955	922
Arrive On Green	0.00	0.47	0.47	0.04	0.55	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	3290	381	1781	3647	0				812	2795	2696
Grp Volume(v), veh/h	0	504	511	39	158	0				320	0	905
Grp Sat Flow(s),veh/h/ln	0	1777	1800	1781	1777	0				1830	1777	1348
Q Serve(g_s), s	0.0	23.1	23.1	2.4	2.3	0.0				15.3	0.0	36.6
Cycle Q Clear(g_c), s	0.0	23.1	23.1	2.4	2.3	0.0				15.3	0.0	36.6
Prop In Lane	0.00		0.21	1.00		0.00				0.44		1.00
Lane Grp Cap(c), veh/h	0	834	845	71	1951	0				625	607	922
V/C Ratio(X)	0.00	0.60	0.60	0.55	0.08	0.00				0.51	0.00	0.98
Avail Cap(c_a), veh/h	0	834	845	123	1951	0				625	607	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.80	0.80	0.78	0.78	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.6	21.6	51.9	11.7	0.0				28.9	0.0	35.9
Incr Delay (d2), s/veh	0.0	2.6	2.6	1.9	0.1	0.0				3.0	0.0	25.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.6	9.8	1.1	0.9	0.0				7.3	0.0	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.2	24.2	53.8	11.8	0.0				31.9	0.0	61.5
LnGrp LOS	A	C	C	D	B	A				C	A	E
Approach Vol, veh/h		1015			197						1225	
Approach Delay, s/veh		24.2			20.1						53.7	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	8.8	58.2		43.0		67.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.6	* 50		37.6		60.4						
Max Q Clear Time (g_c+I14), s	14.4	25.1		38.6		4.3						
Green Ext Time (p_c), s	0.0	2.0		0.0		0.3						

Intersection Summary

HCM 6th Ctrl Delay	38.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	↑↑
Traffic Volume (veh/h)	0	562	0	0	1133	798
Future Volume (veh/h)	0	562	0	0	1133	798
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	598			1205	849
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2882	1338
Arrive On Green	0.00	0.00			0.85	0.85
Sat Flow, veh/h	0				3572	1580
Grp Volume(v), veh/h	0.0				1205	849
Grp Sat Flow(s),veh/h/ln					1702	1580
Q Serve(g_s), s					2.5	5.2
Cycle Q Clear(g_c), s					2.5	5.2
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2882	1338
V/C Ratio(X)					0.42	0.63
Avail Cap(c_a), veh/h					3651	1695
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.7
Incr Delay (d2), s/veh					0.1	0.5
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	1.3
LnGrp LOS					A	A
Approach Vol, veh/h					2054	
Approach Delay, s/veh					0.9	
Approach LOS					A	
Timer - Assigned Phs						6
Phs Duration (G+Y+Rc), s						29.4
Change Period (Y+Rc), s						4.5
Max Green Setting (Gmax), s						31.5
Max Q Clear Time (g_c+I1), s						7.2
Green Ext Time (p_c), s						17.6
Intersection Summary						
HCM 6th Ctrl Delay			0.9			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	116	217	92	272	333	85	163	428	72	159	1035	54
Future Volume (veh/h)	116	217	92	272	333	85	163	428	72	159	1035	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	231	98	289	354	90	173	455	77	169	1101	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	392	174	470	414	105	206	1131	477	203	1495	77
Arrive On Green	0.09	0.11	0.11	0.26	0.29	0.29	0.12	0.30	0.30	0.11	0.30	0.30
Sat Flow, veh/h	1781	3554	1576	1781	1438	366	1781	3741	1579	1781	4969	257
Grp Volume(v), veh/h	123	231	98	289	0	444	173	455	77	169	754	404
Grp Sat Flow(s),veh/h/ln	1781	1777	1576	1781	0	1804	1781	1870	1579	1781	1702	1822
Q Serve(g_s), s	6.2	5.6	4.0	12.9	0.0	21.1	8.6	8.8	1.5	8.4	18.1	18.1
Cycle Q Clear(g_c), s	6.2	5.6	4.0	12.9	0.0	21.1	8.6	8.8	1.5	8.4	18.1	18.1
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	154	392	174	470	0	519	206	1131	477	203	1024	548
V/C Ratio(X)	0.80	0.59	0.56	0.62	0.00	0.85	0.84	0.40	0.16	0.83	0.74	0.74
Avail Cap(c_a), veh/h	224	1292	573	470	0	771	210	1131	477	279	1129	604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	40.7	38.4	21.8	29.4	0.0	30.5	39.3	25.1	5.1	39.3	28.5	28.5
Incr Delay (d2), s/veh	7.5	0.5	1.1	1.8	0.0	6.2	23.3	0.4	0.3	10.6	2.8	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.5	2.1	5.7	0.0	9.9	5.0	3.8	1.2	4.2	7.4	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	38.9	22.9	31.1	0.0	36.8	62.7	25.6	5.4	49.9	31.3	33.7
LnGrp LOS	D	D	C	C	A	D	E	C	A	D	C	C
Approach Vol, veh/h	452		733			705			1327			
Approach Delay, s/veh	38.0		34.5			32.5			34.4			
Approach LOS	D		C			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	32.7	28.3	14.9	14.9	32.6	12.2	31.0				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	11.2	26.6	17.2	33.0	10.7	30.1	11.4	38.8				
Max Q Clear Time (g_c+T10), s	10.4	10.8	14.9	7.6	10.6	20.1	8.2	23.1				
Green Ext Time (p_c), s	0.1	4.6	0.1	1.2	0.0	6.9	0.0	2.7				

Intersection Summary

HCM 6th Ctrl Delay 34.5

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	48	49	236	3	10	19	565	441	215	1294	22
Future Volume (veh/h)	32	48	49	236	3	10	19	565	441	215	1294	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	56	57	274	3	12	22	657	513	250	1505	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	111	113	304	88	353	32	1296	574	279	2601	45
Arrive On Green	0.03	0.13	0.13	0.17	0.27	0.27	0.02	0.36	0.36	0.16	0.50	0.50
Sat Flow, veh/h	1781	841	856	1781	325	1298	1781	3554	1573	1781	5168	89
Grp Volume(v), veh/h	37	0	113	274	0	15	22	657	513	250	991	540
Grp Sat Flow(s),veh/h/ln	1781	0	1698	1781	0	1623	1781	1777	1573	1781	1702	1853
Q Serve(g_s), s	2.3	0.0	6.8	16.6	0.0	0.7	1.4	15.9	33.9	15.2	22.5	22.5
Cycle Q Clear(g_c), s	2.3	0.0	6.8	16.6	0.0	0.7	1.4	15.9	33.9	15.2	22.5	22.5
Prop In Lane	1.00		0.50	1.00		0.80	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	55	0	225	304	0	442	32	1296	574	279	1713	933
V/C Ratio(X)	0.68	0.00	0.50	0.90	0.00	0.03	0.69	0.51	0.89	0.90	0.58	0.58
Avail Cap(c_a), veh/h	112	0	478	331	0	645	94	1355	600	301	1713	933
HCM Platoon Ratio	1.00	1.00	1.00	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	52.9	0.0	44.4	44.8	0.0	29.5	53.8	27.3	33.0	45.6	19.2	19.2
Incr Delay (d2), s/veh	13.5	0.0	0.6	25.3	0.0	0.0	9.7	0.6	16.2	25.2	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	2.9	9.5	0.0	0.3	0.7	6.7	15.4	8.6	8.6	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.4	0.0	45.1	70.1	0.0	29.5	63.5	27.8	49.2	70.9	19.7	20.1
LnGrp LOS	E	A	D	E	A	C	E	C	D	E	B	C
Approach Vol, veh/h	150		289			1192			1781			
Approach Delay, s/veh	50.3		68.0			37.7			27.0			
Approach LOS	D		E			D			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.6	45.9	23.3	19.4	6.4	61.2	7.9	34.8				
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.8	4.4	5.7	4.5	* 4.8				
Max Green Setting (Gmax), s	42.6	* 42	20.5	* 31	5.8	54.1	6.9	* 44				
Max Q Clear Time (g_c+I1), s	117.2	35.9	18.6	8.8	3.4	24.5	4.3	2.7				
Green Ext Time (p_c), s	0.1	4.3	0.2	0.4	0.0	12.9	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	546	1332	94	191	556	100	96	300	146	206	768	675
Future Volume (veh/h)	546	1332	94	191	556	100	96	300	146	206	768	675
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	635	1549	109	222	647	116	112	349	170	240	893	785
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	700	2433	170	214	1927	345	115	329	276	230	868	1240
Arrive On Green	0.20	0.72	0.72	0.12	0.64	0.64	0.06	0.18	0.18	0.13	0.24	0.24
Sat Flow, veh/h	3456	3366	235	1781	3011	539	1781	1870	1572	1781	3554	2761
Grp Volume(v), veh/h	635	813	845	222	381	382	112	349	170	240	893	785
Grp Sat Flow(s),veh/h/ln	1728	1777	1824	1781	1777	1773	1781	1870	1572	1781	1777	1381
Q Serve(g_s), s	25.1	32.7	33.5	16.8	13.8	13.8	8.8	24.6	15.8	18.1	34.2	30.8
Cycle Q Clear(g_c), s	25.1	32.7	33.5	16.8	13.8	13.8	8.8	24.6	15.8	18.1	34.2	30.8
Prop In Lane	1.00		0.13	1.00		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	700	1284	1319	214	1138	1135	115	329	276	230	868	1240
V/C Ratio(X)	0.91	0.63	0.64	1.04	0.34	0.34	0.98	1.06	0.62	1.04	1.03	0.63
Avail Cap(c_a), veh/h	805	1284	1319	214	1138	1135	115	329	276	230	868	1240
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	0.98	0.98	0.98	0.74	0.74	0.74
Uniform Delay (d), s/veh	54.5	9.9	10.0	61.6	11.5	11.5	65.4	57.7	67.8	61.0	52.9	29.9
Incr Delay (d2), s/veh	12.8	2.4	2.4	68.2	0.7	0.7	75.9	66.5	4.2	62.4	33.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	12.0	12.6	11.5	5.4	5.4	6.4	17.6	6.6	12.1	19.2	10.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	12.3	12.4	129.8	12.2	12.3	141.3	124.2	72.0	123.4	86.8	30.8
LnGrp LOS	E	B	B	F	B	B	F	F	E	F	F	C
Approach Vol, veh/h		2293			985			631			1918	
Approach Delay, s/veh		27.6			38.7			113.1			68.5	
Approach LOS		C			D			F			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.1	29.5	21.2	108.2	13.4	39.2	32.8	96.6				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	* 5.8	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	18.1	* 25	16.8	* 62	9.0	33.6	32.6	45.2				
Max Q Clear Time (g_c+I1), s	20.1	26.6	18.8	35.5	10.8	36.2	27.1	15.8				
Green Ext Time (p_c), s	0.0	0.0	0.0	17.7	0.0	0.0	1.2	4.2				
Intersection Summary												
HCM 6th Ctrl Delay			52.2									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2026 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	1448	156	38	180	0	0	0	0	298	670	697
Future Volume (veh/h)	0	1448	156	38	180	0	0	0	0	298	670	697
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1540	166	40	191	0				317	713	741
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	3313	353	70	3916	0				330	801	862
Arrive On Green	0.00	1.00	1.00	0.04	1.00	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3332	345	1781	3647	0				1048	2547	2741
Grp Volume(v), veh/h	0	837	869	40	191	0				550	480	741
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1818	1777	1370
Q Serve(g_s), s	0.0	0.0	0.0	2.4	0.0	0.0				32.7	27.9	27.9
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	0.0	0.0				32.7	27.9	27.9
Prop In Lane	0.00		0.19	1.00		0.00				0.58		1.00
Lane Grp Cap(c), veh/h	0	1817	1849	70	3916	0				572	559	862
V/C Ratio(X)	0.00	0.46	0.47	0.57	0.05	0.00				0.96	0.86	0.86
Avail Cap(c_a), veh/h	0	1817	1849	70	3916	0				572	559	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.60	0.60	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	52.0	0.0	0.0				37.1	35.4	35.4
Incr Delay (d2), s/veh	0.0	0.1	0.1	4.4	0.0	0.0				29.3	15.7	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	1.1	0.0	0.0				19.1	14.5	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.1	0.1	56.4	0.0	0.0				66.4	51.1	46.3
LnGrp LOS	A	A	A	E	A	A				E	D	D
Approach Vol, veh/h		1706			231						1771	
Approach Delay, s/veh		0.1			9.8						53.8	
Approach LOS		A			A						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	120.8			40.0		129.5						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	4.3	* 56		34.6		63.4						
Max Q Clear Time (g_c+I), s	14.4	2.0		34.7		2.0						
Green Ext Time (p_c), s	0.0	4.4		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	686	0	0	2179	528
Future Volume (veh/h)	0	686	0	0	2179	528
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	730			2318	562
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3779	852
Arrive On Green	0.00	0.00			0.91	0.91
Sat Flow, veh/h	0				4334	939
Grp Volume(v), veh/h	0.0				1862	1018
Grp Sat Flow(s),veh/h/ln					1702	1701
Q Serve(g_s), s					5.4	6.7
Cycle Q Clear(g_c), s					5.4	6.7
Prop In Lane						0.55
Lane Grp Cap(c), veh/h					3088	1543
V/C Ratio(X)					0.60	0.66
Avail Cap(c_a), veh/h					3478	1738
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.5
Incr Delay (d2), s/veh					0.2	0.8
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.7	1.3
LnGrp LOS					A	A
Approach Vol, veh/h					2880	
Approach Delay, s/veh					0.9	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					48.4	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					49.5	
Max Q Clear Time (g_c+I1), s					8.7	
Green Ext Time (p_c), s					35.2	
Intersection Summary						
HCM 6th Ctrl Delay			0.9			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

2030 Conditions

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	209	93	216	183	77	100	138	179	84	115	71
Future Volume (veh/h)	34	209	93	216	183	77	100	138	179	84	115	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	222	99	230	195	82	106	147	190	89	122	76
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1307	658	316	809	636	136	757	472	115	716	309
Arrive On Green	0.03	0.37	0.37	0.09	0.43	0.43	0.08	0.21	0.21	0.06	0.20	0.20
Sat Flow, veh/h	1781	3554	1460	3456	1870	1471	1781	3554	1536	1781	3554	1534
Grp Volume(v), veh/h	36	222	99	230	195	82	106	147	190	89	122	76
Grp Sat Flow(s),veh/h/ln	1781	1777	1460	1728	1870	1471	1781	1777	1536	1781	1777	1534
Q Serve(g_s), s	1.8	3.7	3.6	5.8	5.9	3.0	5.2	3.0	8.7	4.4	2.5	3.7
Cycle Q Clear(g_c), s	1.8	3.7	3.6	5.8	5.9	3.0	5.2	3.0	8.7	4.4	2.5	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1307	658	316	809	636	136	757	472	115	716	309
V/C Ratio(X)	0.76	0.17	0.15	0.73	0.24	0.13	0.78	0.19	0.40	0.77	0.17	0.25
Avail Cap(c_a), veh/h	601	1598	778	1165	841	661	601	1598	836	601	1598	690
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	19.0	14.8	39.3	16.0	15.2	40.4	28.7	24.5	41.0	29.4	29.8
Incr Delay (d2), s/veh	9.1	0.1	0.1	1.2	0.1	0.0	3.6	0.1	0.6	4.1	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 BackOfQ(50%),veh/ln	0.9	1.5	1.2	2.5	2.4	1.0	2.4	1.3	3.2	2.0	1.1	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	19.0	14.9	40.5	16.1	15.2	44.0	28.9	25.1	45.0	29.4	30.0
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		357			507			443			287	
Approach Delay, s/veh		21.2			27.0			30.9			34.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.5	38.6	12.2	24.6	7.8	44.4	11.2	25.7				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	7.8	5.7	7.2	5.7	3.8	7.9	6.4	10.7				
Green Ext Time (p_c), s	0.4	2.3	0.1	0.6	0.0	1.0	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			28.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	11	0	9	25	0	37	80	322	29	69	309	35
Future Volume (veh/h)	11	0	9	25	0	37	80	322	29	69	309	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	0	10	27	0	40	87	350	32	75	336	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	42	121	464	0	370	118	1531	137	107	1468	162
Arrive On Green	0.18	0.00	0.18	0.18	0.00	0.18	0.07	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	580	236	681	1395	0	1548	1781	4754	426	1781	4649	513
Grp Volume(v), veh/h	22	0	0	27	0	40	87	249	133	75	244	130
Grp Sat Flow(s), veh/h/ln	1497	0	0	1395	0	1548	1781	1702	1776	1781	1702	1758
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.7	1.6	1.8	1.8	1.4	1.8	1.8
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.5	0.0	0.7	1.6	1.8	1.8	1.4	1.8	1.8
Prop In Lane	0.55		0.45	1.00		1.00	1.00		0.24	1.00		0.29
Lane Grp Cap(c), veh/h	433	0	0	464	0	370	118	1097	572	107	1075	555
V/C Ratio(X)	0.05	0.00	0.00	0.06	0.00	0.11	0.74	0.23	0.23	0.70	0.23	0.23
Avail Cap(c_a), veh/h	1886	0	0	1863	0	1948	1600	6113	3190	1600	6113	3158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	11.5	0.0	10.0	15.3	8.3	8.3	15.4	8.4	8.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.1	0.3	3.1	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.1	0.0	0.2	0.6	0.5	0.5	0.6	0.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.5	0.0	0.0	11.5	0.0	10.0	18.6	8.4	8.6	18.5	8.5	8.7
LnGrp LOS	B	A	A	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h		22			67			469			449	
Approach Delay, s/veh		11.5			10.6			10.4			10.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	16.2		10.8	6.6	16.0		10.8				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.4	3.8		2.4	3.6	3.8		2.7				
Green Ext Time (p_c), s	0.1	3.7		0.1	0.1	3.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay 10.4

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	12	30	41	52	12	372	643	114	40	448	199
Future Volume (veh/h)	19	12	30	41	52	12	372	643	114	40	448	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.74	1.00		0.74	1.00		0.94	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	13	32	44	56	13	400	691	123	43	482	214
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	462	289	57	462	289	426	1767	740	56	692	304
Arrive On Green	0.03	0.25	0.25	0.03	0.25	0.25	0.24	0.50	0.50	0.03	0.30	0.30
Sat Flow, veh/h	1781	1870	1169	1781	1870	1169	1781	3554	1489	1781	2326	1023
Grp Volume(v), veh/h	20	13	32	44	56	13	400	691	123	43	367	329
Grp Sat Flow(s),veh/h/ln	1781	1870	1169	1781	1870	1169	1781	1777	1489	1781	1777	1572
Q Serve(g_s), s	1.3	0.6	2.6	3.0	2.8	1.0	26.8	14.7	5.5	2.9	22.2	22.6
Cycle Q Clear(g_c), s	1.3	0.6	2.6	3.0	2.8	1.0	26.8	14.7	5.5	2.9	22.2	22.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.65
Lane Grp Cap(c), veh/h	57	462	289	57	462	289	426	1767	740	56	529	468
V/C Ratio(X)	0.35	0.03	0.11	0.77	0.12	0.05	0.94	0.39	0.17	0.77	0.69	0.70
Avail Cap(c_a), veh/h	440	462	289	440	462	289	440	1767	740	440	878	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(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	57.5	34.7	35.4	58.3	35.5	34.8	45.3	19.1	16.7	58.4	37.8	37.9
Incr Delay (d2), s/veh	1.4	0.0	0.1	8.0	0.0	0.0	28.1	0.2	0.1	8.2	4.5	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.3	0.7	1.5	1.3	0.3	15.1	6.1	1.9	1.4	10.3	9.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.9	34.7	35.5	66.4	35.5	34.9	73.5	19.2	16.9	66.6	42.2	43.1
LnGrp LOS	E	C	D	E	D	C	E	B	B	E	D	D
Approach Vol, veh/h	65			113			1214			739		
Approach Delay, s/veh	42.5			47.5			36.9			44.1		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.2	69.1	8.3	34.9	33.4	44.8	8.3	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+14.9), s	14.9	16.7	5.0	4.6	28.8	24.6	3.3	4.8				
Green Ext Time (p_c), s	0.0	7.9	0.0	0.1	0.3	11.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 40.1

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	189	17	168	153	0	0	0	0	197	23	41
Future Volume (veh/h)	0	189	17	168	153	0	0	0	0	197	23	41
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	208	19	185	168	0				234	0	45
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	240	479	210	374	715	0				944	0	626
Arrive On Green	0.00	0.13	0.13	0.21	0.21	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1562	1781	3572	0				3563	0	1557
Grp Volume(v), veh/h	0	208	19	185	168	0				234	0	45
Grp Sat Flow(s), veh/h/ln	1781	1777	1562	1781	1702	0				1781	0	1557
Q Serve(g_s), s	0.0	2.0	0.4	3.4	1.5	0.0				1.9	0.0	0.7
Cycle Q Clear(g_c), s	0.0	2.0	0.4	3.4	1.5	0.0				1.9	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	240	479	210	374	715	0				944	0	626
V/C Ratio(X)	0.00	0.43	0.09	0.49	0.24	0.00				0.25	0.00	0.07
Avail Cap(c_a), veh/h	2877	5739	2522	2877	5497	0				3356	0	1680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.8	14.1	12.9	12.2	0.0				10.7	0.0	6.9
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.1	0.2	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 BackOfQ(50%), veh/ln	0.0	0.6	0.1	1.1	0.4	0.0				0.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.0	14.1	14.1	12.4	0.0				10.8	0.0	6.9
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	227			353			279					
Approach Delay, s/veh	14.9			13.3			10.2					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.0			16.0			12.1					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.0			3.9			5.4					
Green Ext Time (p_c), s	0.8			0.5			2.4					

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	264	0	0	309	331	37	7	154	20	0	289
Future Volume (veh/h)	86	264	0	0	309	331	37	7	154	20	0	289
Initial Q (Qb), 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		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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	293	0	0	343	368	41	8	171	22	0	321
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	127	1538	0	0	551	487	269	11	225	25	0	367
Arrive On Green	0.07	0.43	0.00	0.00	0.31	0.31	0.15	0.15	0.15	0.25	0.00	0.25
Sat Flow, veh/h	1781	3647	0	0	1870	1570	1781	70	1491	102	0	1485
Grp Volume(v), veh/h	96	293	0	0	343	368	41	0	179	343	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1570	1781	0	1560	1587	0	0
Q Serve(g_s), s	4.6	4.5	0.0	0.0	14.4	18.5	1.8	0.0	9.6	18.2	0.0	0.0
Cycle Q Clear(g_c), s	4.6	4.5	0.0	0.0	14.4	18.5	1.8	0.0	9.6	18.2	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.96	0.06		0.94
Lane Grp Cap(c), veh/h	127	1538	0	0	551	487	269	0	235	393	0	0
V/C Ratio(X)	0.76	0.19	0.00	0.00	0.62	0.76	0.15	0.00	0.76	0.87	0.00	0.00
Avail Cap(c_a), veh/h	611	2436	0	0	1218	1076	814	0	713	725	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.9	15.4	0.0	0.0	25.8	27.2	32.3	0.0	35.6	31.6	0.0	0.0
Incr Delay (d2), s/veh	10.5	0.0	0.0	0.0	1.4	2.9	0.1	0.0	1.9	2.4	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 BackOfQ(50%),veh/ln	2.3	1.6	0.0	0.0	5.8	6.7	0.8	0.0	3.7	7.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	15.4	0.0	0.0	27.2	30.1	32.4	0.0	37.5	34.1	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	D	C	A	A
Approach Vol, veh/h	389				711		220				343	
Approach Delay, s/veh	24.0				28.7		36.6				34.1	
Approach LOS	C				C		D				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	42.3		25.6		10.7		31.5		19.6			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	6.5		20.2		6.6		20.5		11.6			
Green Ext Time (p_c), s	1.1		1.5		0.3		5.9		0.8			

Intersection Summary

HCM 6th Ctrl Delay	29.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	384	129	304	452	0	0	0	0	387	242	197
Future Volume (veh/h)	0	384	129	304	452	0	0	0	0	387	242	197
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	392	132	310	461	0				395	247	201
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1901	845	390	2488	0				653	343	283
Arrive On Green	0.00	0.53	0.53	0.23	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1546
Grp Volume(v), veh/h	0	392	132	310	461	0				395	247	201
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1546
Q Serve(g_s), s	0.0	4.8	3.6	7.1	0.0	0.0				8.6	10.4	10.3
Cycle Q Clear(g_c), s	0.0	4.8	3.6	7.1	0.0	0.0				8.6	10.4	10.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1901	845	390	2488	0				653	343	283
V/C Ratio(X)	0.00	0.21	0.16	0.80	0.19	0.00				0.61	0.72	0.71
Avail Cap(c_a), veh/h	0	1901	845	703	2488	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.2	9.9	31.6	0.0	0.0				31.5	32.3	32.2
Incr Delay (d2), s/veh	0.0	0.2	0.4	1.4	0.2	0.0				0.3	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	1.1	2.6	0.1	0.0				3.6	4.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.5	10.3	33.0	0.2	0.0				31.8	33.4	33.4
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		524			771						843	
Approach Delay, s/veh		10.4			13.3						32.7	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.9	49.8		20.3		63.7						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	19.1	6.8		12.4		2.0						
Green Ext Time (p_c), s	0.4	2.7		2.0		3.4						

Intersection Summary

HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	224	558	0	0	609	565	140	254	22	0	0	0
Future Volume (veh/h)	224	558	0	0	609	565	140	254	22	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	226	564	0	0	615	571	141	257	22			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1234	2666	0	0	1189	519	221	447	38			
Arrive On Green	0.71	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1658	3355	286			
Grp Volume(v), veh/h	226	564	0	0	615	571	152	129	139			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1553	1787	1702	1809			
Q Serve(g_s), s	1.8	0.0	0.0	0.0	11.7	28.1	6.8	6.0	6.1			
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.0	11.7	28.1	6.8	6.0	6.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.93		0.16			
Lane Grp Cap(c), veh/h	1234	2666	0	0	1189	519	238	227	241			
V/C Ratio(X)	0.18	0.21	0.00	0.00	0.52	1.10	0.64	0.57	0.58			
Avail Cap(c_a), veh/h	1234	2666	0	0	1189	519	598	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.0	0.0	0.0	0.0	22.5	28.0	34.5	34.1	34.2			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.6	69.4	1.1	0.8	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.1	0.0	0.0	4.7	19.3	3.0	2.5	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	0.2	0.0	0.0	24.1	97.3	35.5	35.0	35.0			
LnGrp LOS	A	A	A	A	C	F	D	C	C			
Approach Vol, veh/h	790		1186				420					
Approach Delay, s/veh	2.4		59.4				35.2					
Approach LOS	A		E				D					
Timer - Assigned Phs	2				5	6			8			
Phs Duration (G+Y+Rc), s	67.9				34.9	33.0			16.1			
Change Period (Y+Rc), s	4.9				4.9	* 4.9			4.9			
Max Green Setting (Gmax), s	46.1				13.1	* 28			28.1			
Max Q Clear Time (g_c+I1), s	2.0				3.8	30.1			8.8			
Green Ext Time (p_c), s	4.7				0.5	0.0			1.5			

Intersection Summary

HCM 6th Ctrl Delay	36.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	17	44	12	1098	20	0	0	0
Future Volume (veh/h)	0	0	0	0	17	44	12	1098	20	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	56	15	1408	26			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	77	96	3385	62			
Arrive On Green				0.00	0.07	0.07	0.68	0.68	0.68			
Sat Flow, veh/h				0	465	1183	15	4990	92			
Grp Volume(v), veh/h				0	0	78	531	440	478			
Grp Sat Flow(s),veh/h/ln				0	0	1648	1865	1549	1683			
Q Serve(g_s), s				0.0	0.0	2.0	0.0	5.5	5.5			
Cycle Q Clear(g_c), s				0.0	0.0	2.0	5.5	5.5	5.5			
Prop In Lane				0.00		0.72	0.03		0.05			
Lane Grp Cap(c), veh/h				0	0	107	1351	1051	1142			
V/C Ratio(X)				0.00	0.00	0.73	0.39	0.42	0.42			
Avail Cap(c_a), veh/h				0	0	1524	2664	2148	2334			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	19.9	3.1	3.1	3.1			
Incr Delay (d2), s/veh				0.0	0.0	3.5	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.8	0.8	0.7	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	23.3	3.4	3.5	3.5			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					78			1449				
Approach Delay, s/veh					23.3			3.5				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		35.0						8.3				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		7.5						4.0				
Green Ext Time (p_c), s		21.8						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.5									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	138	63	357	506	61	210	307	62	60	291	93
Future Volume (veh/h)	101	138	63	357	506	61	210	307	62	60	291	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	148	68	384	544	66	226	330	67	65	313	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	403	339	425	614	74	266	1179	230	84	673	202
Arrive On Green	0.08	0.22	0.22	0.24	0.38	0.38	0.15	0.28	0.28	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1574	1781	1635	198	1781	4266	832	1781	3864	1159
Grp Volume(v), veh/h	109	148	68	384	0	610	226	261	136	65	273	140
Grp Sat Flow(s),veh/h/ln	1781	1870	1574	1781	0	1834	1781	1702	1694	1781	1702	1619
Q Serve(g_s), s	5.1	5.8	3.0	17.9	0.0	26.6	10.6	5.1	5.4	3.1	6.2	6.7
Cycle Q Clear(g_c), s	5.1	5.8	3.0	17.9	0.0	26.6	10.6	5.1	5.4	3.1	6.2	6.7
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.49	1.00		0.72
Lane Grp Cap(c), veh/h	140	403	339	425	0	688	266	941	468	84	593	282
V/C Ratio(X)	0.78	0.37	0.20	0.90	0.00	0.89	0.85	0.28	0.29	0.77	0.46	0.50
Avail Cap(c_a), veh/h	626	876	737	626	0	859	626	2391	1190	626	2391	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	38.6	28.5	27.5	31.6	0.0	25.0	35.4	24.2	24.3	40.2	31.7	31.9
Incr Delay (d2), s/veh	3.5	0.2	0.1	9.5	0.0	9.4	2.9	0.3	0.6	5.4	1.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.6	1.1	8.7	0.0	12.9	4.6	2.0	2.2	1.4	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	28.7	27.6	41.1	0.0	34.4	38.3	24.5	25.0	45.7	32.7	34.3
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h	325			994			623			478		
Approach Delay, s/veh	33.0			37.0			29.6			34.9		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	28.9	24.8	23.3	17.2	20.2	11.1	37.0				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	15.5	7.4	19.9	7.8	12.6	8.7	7.1	28.6				
Green Ext Time (p_c), s	0.1	5.0	0.5	0.7	0.3	5.1	0.1	3.3				

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	81	198	139	285	0	0	0	0	86	1666	623
Future Volume (veh/h)	0	81	198	139	285	0	0	0	0	86	1666	623
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	92	225	158	324	0				98	1893	708
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	475	403	245	493	0				1091	2286	790
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.61	0.61	0.61
Sat Flow, veh/h	0	1870	1585	718	2027	0				1781	3731	1290
Grp Volume(v), veh/h	0	92	225	229	253	0				98	1714	887
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1043	1617	0				1781	1702	1616
Q Serve(g_s), s	0.0	3.8	12.0	17.5	13.5	0.0				2.2	38.3	46.0
Cycle Q Clear(g_c), s	0.0	3.8	12.0	21.3	13.5	0.0				2.2	38.3	46.0
Prop In Lane	0.00		1.00	0.69		0.00				1.00		0.80
Lane Grp Cap(c), veh/h	0	475	403	327	411	0				1091	2085	990
V/C Ratio(X)	0.00	0.19	0.56	0.70	0.62	0.00				0.09	0.82	0.90
Avail Cap(c_a), veh/h	0	575	487	393	497	0				1095	2093	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.5	31.6	36.9	32.2	0.0				7.7	14.7	16.2
Incr Delay (d2), s/veh	0.0	0.1	0.5	3.7	1.2	0.0				0.1	3.0	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	4.7	5.6	5.4	0.0				0.8	14.0	18.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.6	32.1	40.6	33.4	0.0				7.8	17.7	27.3
LnGrp LOS	A	C	C	D	C	A				A	B	C
Approach Vol, veh/h		317			482						2699	
Approach Delay, s/veh		31.1			36.8						20.5	
Approach LOS		C			D						C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				31.5		66.1		31.5				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				14.0		48.0		23.3				
Green Ext Time (p_c), s				0.7		11.8		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			23.7									
HCM 6th LOS			C									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	69	17	82	0	33	22	386	1177	22	0	0	0
Future Volume (veh/h)	69	17	82	0	33	22	386	1177	22	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	73	18	86	0	35	23	406	1239	23			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	300	53	1108	0	143	94	1005	2012	37			
Arrive On Green	0.14	0.14	0.14	0.00	0.14	0.14	0.56	0.56	0.56			
Sat Flow, veh/h	888	387	1568	0	1044	686	1781	3567	66			
Grp Volume(v), veh/h	91	0	86	0	0	58	406	617	645			
Grp Sat Flow(s),veh/h/ln	1275	0	1568	0	0	1730	1781	1777	1856			
Q Serve(g_s), s	1.6	0.0	0.0	0.0	0.0	1.1	4.7	8.4	8.5			
Cycle Q Clear(g_c), s	2.7	0.0	0.0	0.0	0.0	1.1	4.7	8.4	8.5			
Prop In Lane	0.80		1.00	0.00		0.40	1.00		0.04			
Lane Grp Cap(c), veh/h	352	0	1108	0	0	236	1005	1002	1047			
V/C Ratio(X)	0.26	0.00	0.08	0.00	0.00	0.25	0.40	0.62	0.62			
Avail Cap(c_a), veh/h	1327	0	2186	0	0	1426	1443	1440	1504			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	14.8	0.0	1.7	0.0	0.0	14.0	4.5	5.3	5.3			
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.2	0.3	0.6	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.0	0.4	0.9	1.6	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	1.8	0.0	0.0	14.2	4.7	5.9	5.9			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		177			58			1668				
Approach Delay, s/veh		8.7			14.2			5.6				
Approach LOS		A			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		25.0		11.4				11.4				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+I1), s		10.5		4.7				3.1				
Green Ext Time (p_c), s		10.1		0.8				0.2				
Intersection Summary												
HCM 6th Ctrl Delay			6.2									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	48	39	149	6	7	45	528	125	103	641	20
Future Volume (veh/h)	27	48	39	149	6	7	45	528	125	103	641	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	53	43	164	7	8	49	580	137	113	704	22
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	480	238	193	408	198	226	70	2013	614	217	2123	66
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.39	0.39	0.06	0.42	0.42
Sat Flow, veh/h	1394	954	774	1296	795	908	1781	5106	1557	3456	5082	158
Grp Volume(v), veh/h	30	0	96	164	0	15	49	580	137	113	471	255
Grp Sat Flow(s),veh/h/ln	1394	0	1728	1296	0	1703	1781	1702	1557	1728	1702	1836
Q Serve(g_s), s	0.8	0.0	2.2	5.8	0.0	0.3	1.4	3.9	3.0	1.6	4.7	4.8
Cycle Q Clear(g_c), s	1.2	0.0	2.2	8.1	0.0	0.3	1.4	3.9	3.0	1.6	4.7	4.8
Prop In Lane	1.00		0.45	1.00		0.53	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	480	0	431	408	0	424	70	2013	614	217	1422	767
V/C Ratio(X)	0.06	0.00	0.22	0.40	0.00	0.04	0.70	0.29	0.22	0.52	0.33	0.33
Avail Cap(c_a), veh/h	1231	0	1362	1106	0	1343	1053	6039	1841	2044	4026	2172
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	15.1	18.4	0.0	14.4	24.1	10.5	10.2	23.0	10.0	10.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.0	4.6	0.1	0.3	0.7	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 BackOfQ(50%),veh/ln	0.2	0.0	0.8	1.6	0.0	0.1	0.6	1.2	0.9	0.6	1.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	15.2	18.6	0.0	14.4	28.7	10.6	10.5	23.8	10.1	10.2
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	126				179		766				839	
Approach Delay, s/veh	15.2				18.2		11.8				12.0	
Approach LOS	B				B		B				B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.6	25.7	17.4		6.4	26.9	17.4					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	13.6	5.9	4.2		3.4	6.8	10.1					
Green Ext Time (p_c), s	0.2	9.2	0.4		0.0	5.3	0.3					

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	2977	10	0	2893	0	3
Future Vol, veh/h	2977	10	0	2893	0	3
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	3271	11	0	3179	0	3
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1641
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	76
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	76
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		54.5		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	76	-	-	-		
HCM Lane V/C Ratio	0.043	-	-	-		
HCM Control Delay (s)	54.5	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1076	1950	2633	56	29	83
Future Volume (veh/h)	1076	1950	2633	56	29	83
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1223	2216	2992	0	33	94
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	750	4165	2898		134	120
Arrive On Green	0.22	0.84	0.58	0.00	0.08	0.08
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1223	2216	2992	0	33	94
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	25.6	15.5	68.6	0.0	2.1	6.9
Cycle Q Clear(g_c), s	25.6	15.5	68.6	0.0	2.1	6.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	750	4165	2898		134	120
V/C Ratio(X)	1.63	0.53	1.03		0.25	0.79
Avail Cap(c_a), veh/h	750	4165	2898		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	2.9	24.7	0.0	51.4	53.6
Incr Delay (d2), s/veh	290.2	0.5	16.2	0.0	0.3	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	40.8	2.7	27.9	0.0	0.9	6.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	336.4	3.4	40.9	0.0	51.7	57.9
LnGrp LOS	F	A	F		D	E
Approach Vol, veh/h		3439	2992	A	127	
Approach Delay, s/veh		121.8	40.9		56.3	
Approach LOS		F	D		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		103.9		14.1	30.0	73.9
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	25.6	* 48
Max Q Clear Time (g_c+I1), s		17.5		8.9	27.6	70.6
Green Ext Time (p_c), s		56.3		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			83.6			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑		↰	↑↑		↰	↑↑↑		↰	↑↑↑	↰
Traffic Volume (veh/h)	337	883	75	48	1240	53	137	257	70	42	150	581
Future Volume (veh/h)	337	883	75	48	1240	53	137	257	70	42	150	581
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.94	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	362	949	81	52	1333	57	147	276	75	45	161	625
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	1550	132	190	1274	54	171	986	250	58	934	595
Arrive On Green	0.21	0.47	0.47	0.14	0.49	0.49	0.10	0.25	0.25	0.03	0.18	0.18
Sat Flow, veh/h	1781	3309	282	1781	3472	148	1781	4005	1016	1781	5106	1398
Grp Volume(v), veh/h	362	510	520	52	681	709	147	232	119	45	161	625
Grp Sat Flow(s),veh/h/ln	1781	1777	1814	1781	1777	1843	1781	1702	1617	1781	1702	1398
Q Serve(g_s), s	28.1	29.9	29.9	3.6	51.4	51.4	11.4	7.7	8.4	3.5	3.7	25.6
Cycle Q Clear(g_c), s	28.1	29.9	29.9	3.6	51.4	51.4	11.4	7.7	8.4	3.5	3.7	25.6
Prop In Lane	1.00		0.16	1.00		0.08	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	382	833	850	190	652	676	171	838	398	58	934	595
V/C Ratio(X)	0.95	0.61	0.61	0.27	1.05	1.05	0.86	0.28	0.30	0.77	0.17	1.05
Avail Cap(c_a), veh/h	382	833	850	190	652	676	244	838	398	244	934	595
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	0.98	0.98	0.98	0.94	0.94	0.94
Uniform Delay (d), s/veh	54.2	27.7	27.7	55.2	35.8	35.8	62.4	42.7	43.0	67.2	48.3	43.1
Incr Delay (d2), s/veh	32.9	3.3	3.3	2.7	43.5	43.8	13.9	0.2	0.5	7.4	0.1	49.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	13.1	13.4	1.8	27.6	28.7	5.8	3.3	3.4	1.7	1.6	28.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.2	31.1	31.0	57.9	79.4	79.7	76.3	42.9	43.4	74.6	48.4	92.7
LnGrp LOS	F	C	C	E	F	F	E	D	D	E	D	F
Approach Vol, veh/h	1392			1442			498			831		
Approach Delay, s/veh	45.6			78.7			52.9			83.1		
Approach LOS	D			E			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	39.5	20.8	70.8	17.8	30.6	34.4	57.2				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+1.5), s	15.5	10.4	5.6	31.9	13.4	27.6	30.1	53.4				
Green Ext Time (p_c), s	0.0	2.0	0.0	10.7	0.1	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	65.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	897	75	30	193	0	0	0	0	187	223	1173
Future Volume (veh/h)	0	897	75	30	193	0	0	0	0	187	223	1173
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1008	84	34	217	0				210	251	1318
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1671	139	59	2021	0				288	1637	537
Arrive On Green	0.00	1.00	1.00	0.03	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3410	276	1781	3647	0				833	4736	1553
Grp Volume(v), veh/h	0	540	552	34	217	0				461	0	1318
Grp Sat Flow(s),veh/h/ln	0	1777	1816	1781	1777	0				1829	1870	1553
Q Serve(g_s), s	0.0	0.0	0.0	2.6	3.9	0.0				30.9	0.0	48.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6	3.9	0.0				30.9	0.0	48.4
Prop In Lane	0.00		0.15	1.00		0.00				0.46		1.00
Lane Grp Cap(c), veh/h	0	895	915	59	2021	0				632	1293	537
V/C Ratio(X)	0.00	0.60	0.60	0.57	0.11	0.00				0.73	0.00	2.45
Avail Cap(c_a), veh/h	0	895	915	313	2021	0				632	1293	537
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.80	0.80	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	66.7	13.9	0.0				40.1	0.0	45.8
Incr Delay (d2), s/veh	0.0	2.6	2.5	2.6	0.1	0.0				7.2	0.0	660.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.6	1.2	1.6	0.0				15.3	0.0	117.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	2.6	2.5	69.3	14.0	0.0				47.3	0.0	705.9
LnGrp LOS	A	A	A	E	B	A				D	A	F
Approach Vol, veh/h		1092			251						1779	
Approach Delay, s/veh		2.5			21.5						535.3	
Approach LOS		A			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.1	77.1		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	14.6	2.0		50.4		5.9						
Green Ext Time (p_c), s	0.0	2.2		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	307.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↱			
Traffic Volume (veh/h)	761	365	0	0	197	141	45	104	36	0	0	0
Future Volume (veh/h)	761	365	0	0	197	141	45	104	36	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	810	388	0	0	210	150	48	111	38			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1524	1487	0	0	589	400	85	212	127			
Arrive On Green	0.44	0.79	0.00	0.00	0.29	0.29	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	2107	1366	1029	2567	1537			
Grp Volume(v), veh/h	810	388	0	0	184	176	85	74	38			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1603	1819	1777	1537			
Q Serve(g_s), s	13.7	4.3	0.0	0.0	6.5	7.0	3.6	3.2	1.9			
Cycle Q Clear(g_c), s	13.7	4.3	0.0	0.0	6.5	7.0	3.6	3.2	1.9			
Prop In Lane	1.00		0.00	0.00		0.85	0.57		1.00			
Lane Grp Cap(c), veh/h	1524	1487	0	0	520	469	150	147	127			
V/C Ratio(X)	0.53	0.26	0.00	0.00	0.35	0.38	0.57	0.51	0.30			
Avail Cap(c_a), veh/h	1524	1487	0	0	580	523	389	380	329			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.77	0.77	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	16.3	2.1	0.0	0.0	22.3	22.5	35.3	35.1	34.5			
Incr Delay (d2), s/veh	0.3	0.3	0.0	0.0	0.2	0.2	1.2	1.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.9	0.7	0.0	0.0	2.6	2.5	1.6	1.4	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	2.4	0.0	0.0	22.5	22.7	36.5	36.1	35.0			
LnGrp LOS	B	A	A	A	C	C	D	D	C			
Approach Vol, veh/h	1198				360		197					
Approach Delay, s/veh	12.0				22.6		36.1					
Approach LOS	B				C		D					
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	68.5				40.2		28.3		11.5			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	53.1				22.1		* 26		17.1			
Max Q Clear Time (g_c+I1), s	6.3				15.7		9.0		5.6			
Green Ext Time (p_c), s	1.4				1.8		1.2		0.5			

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	100	2030	703	0	0	1948
Future Volume (veh/h)	100	2030	703	0	0	1948
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	108	0	756	0	0	2095
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	156		3181	0	259	5172
Arrive On Green	0.09	0.00	0.64	0.00	0.00	0.82
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	108	0	756	0	0	2095
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	6.5	0.0	7.1	0.0	0.0	9.7
Cycle Q Clear(g_c), s	6.5	0.0	7.1	0.0	0.0	9.7
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	156		3181	0	259	5172
V/C Ratio(X)	0.69		0.24	0.00	0.00	0.41
Avail Cap(c_a), veh/h	486		3181	0	740	5172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.00	0.70	0.00	0.00	0.82
Uniform Delay (d), s/veh	48.7	0.0	8.5	0.0	0.0	2.6
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	2.2	0.0	0.0	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.8	0.0	8.5	0.0	0.0	2.8
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	108	A	756			2095
Approach Delay, s/veh	49.8		8.5			2.8
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.4	75.1			95.5	14.5
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.3	20.1			70.2	30.0
Max Q Clear Time (g_c+I), s	10.6	9.1			11.7	8.5
Green Ext Time (p_c), s	0.0	4.7			35.6	0.1

Intersection Summary

HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	243	2014	132	124	300	0	0	200	25
Future Volume (veh/h)	0	0	0	243	2014	132	124	300	0	0	200	25
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				259	2143	140	132	319	0	0	213	27
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				292	2579	172	160	1479	0	0	643	77
Arrive On Green				0.19	0.19	0.19	0.18	0.58	0.00	0.00	0.14	0.14
Sat Flow, veh/h				514	4539	302	1781	5274	0	0	4711	546
Grp Volume(v), veh/h				929	774	838	132	319	0	0	157	83
Grp Sat Flow(s),veh/h/ln				1845	1702	1809	1781	1702	0	0	1702	1684
Q Serve(g_s), s				54.0	47.9	48.9	7.8	3.3	0.0	0.0	4.6	4.9
Cycle Q Clear(g_c), s				54.0	47.9	48.9	7.8	3.3	0.0	0.0	4.6	4.9
Prop In Lane				0.28		0.17	1.00		0.00	0.00		0.32
Lane Grp Cap(c), veh/h				1048	967	1028	160	1479	0	0	482	238
V/C Ratio(X)				0.89	0.80	0.82	0.82	0.22	0.00	0.00	0.33	0.35
Avail Cap(c_a), veh/h				1048	967	1028	204	1657	0	0	532	263
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.54	0.54	0.54	0.67	0.67	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				41.2	38.7	39.2	44.3	17.1	0.0	0.0	42.5	42.6
Incr Delay (d2), s/veh				6.4	3.9	4.0	10.9	0.1	0.0	0.0	0.3	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				28.5	22.8	24.8	3.6	1.2	0.0	0.0	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.7	42.6	43.1	55.2	17.2	0.0	0.0	42.7	43.2
LnGrp LOS				D	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2542			451			240	
Approach Delay, s/veh					44.6			28.3			42.9	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.8	22.0		68.4	37.8				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				12.6	* 17		62.5	35.7				
Max Q Clear Time (g_c+I1), s				9.8	6.9		56.0	5.3				
Green Ext Time (p_c), s				0.0	0.8		5.7	2.4				
Intersection Summary												
HCM 6th Ctrl Delay											42.2	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	272	2361	0	0	0	0	0	178	62
Future Volume (veh/h)	0	0	0	272	2361	0	0	0	0	0	178	62
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				286	2485	0				0	187	65
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				370	3466	0				0	672	211
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				507	4911	0				0	3958	1190
Grp Volume(v), veh/h				1042	1729	0				0	166	86
Grp Sat Flow(s),veh/h/ln				1845	1702	0				0	1702	1576
Q Serve(g_s), s				57.9	50.9	0.0				0.0	4.6	5.2
Cycle Q Clear(g_c), s				57.9	50.9	0.0				0.0	4.6	5.2
Prop In Lane				0.27		0.00				0.00		0.76
Lane Grp Cap(c), veh/h				1349	2488	0				0	603	279
V/C Ratio(X)				0.77	0.70	0.00				0.00	0.27	0.31
Avail Cap(c_a), veh/h				1349	2488	0				0	603	279
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				33.2	30.6	0.0				0.0	39.1	39.4
Incr Delay (d2), s/veh				4.3	1.6	0.0				0.0	1.1	2.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				30.1	23.7	0.0				0.0	2.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.5	32.2	0.0				0.0	40.3	42.2
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2771						252	
Approach Delay, s/veh					34.2						40.9	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.4		85.6						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				19.5		80.4						
Max Q Clear Time (g_c+l1), s				7.2		59.9						
Green Ext Time (p_c), s				0.3		5.5						
Intersection Summary												
HCM 6th Ctrl Delay											34.8	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2573	123	72	96	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2573	123	72	96	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2737	131	77	102	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3644	172	255	373	0			
Arrive On Green				0.00	0.24	0.24	0.18	0.18	0.00			
Sat Flow, veh/h				0	5160	235	1451	2217	0			
Grp Volume(v), veh/h				0	1852	1016	95	84	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1823	1798	1777	0			
Q Serve(g_s), s				0.0	55.4	57.0	5.1	4.5	0.0			
Cycle Q Clear(g_c), s				0.0	55.4	57.0	5.1	4.5	0.0			
Prop In Lane				0.00		0.13	0.81		0.00			
Lane Grp Cap(c), veh/h				0	2485	1331	315	312	0			
V/C Ratio(X)				0.00	0.75	0.76	0.30	0.27	0.00			
Avail Cap(c_a), veh/h				0	2485	1331	315	312	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	32.3	32.9	39.5	39.2	0.0			
Incr Delay (d2), s/veh				0.0	2.1	4.2	2.5	2.1	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	25.8	29.2	2.5	2.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	34.4	37.1	41.9	41.3	0.0			
LnGrp LOS				A	C	D	D	D	A			
Approach Vol, veh/h					2868			179				
Approach Delay, s/veh					35.3			41.7				
Approach LOS					D			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						59.0		7.1				
Green Ext Time (p_c), s						19.5		0.7				
Intersection Summary												
HCM 6th Ctrl Delay											35.7	
HCM 6th LOS											D	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	346	2755	0	0	0	0	0	218	39
Future Volume (veh/h)	0	0	0	346	2755	0	0	0	0	0	218	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				353	2811	0				0	222	40
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				399	3432	0				0	630	267
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				546	4869	0				0	3647	1506
Grp Volume(v), veh/h				1191	1973	0				0	222	40
Grp Sat Flow(s),veh/h/ln				1843	1702	0				0	1777	1506
Q Serve(g_s), s				68.6	59.8	0.0				0.0	6.0	2.5
Cycle Q Clear(g_c), s				68.6	59.8	0.0				0.0	6.0	2.5
Prop In Lane				0.30		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1345	2485	0				0	630	267
V/C Ratio(X)				0.89	0.79	0.00				0.00	0.35	0.15
Avail Cap(c_a), veh/h				1345	2485	0				0	630	267
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				37.3	34.0	0.0				0.0	39.7	38.2
Incr Delay (d2), s/veh				8.8	2.7	0.0				0.0	1.5	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				37.1	28.1	0.0				0.0	2.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				46.1	36.7	0.0				0.0	41.3	39.4
LnGrp LOS				D	D	A				A	D	D
Approach Vol, veh/h					3164						262	
Approach Delay, s/veh					40.2						41.0	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.4		85.6						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				19.5		80.3						
Max Q Clear Time (g_c+I1), s				8.0		70.6						
Green Ext Time (p_c), s				1.1		9.5						
Intersection Summary												
HCM 6th Ctrl Delay											40.3	
HCM 6th LOS											D	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3013	55	140	79	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3013	55	140	79	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3106	57	144	81	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3768	69	313	312	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5329	94	1781	1870	0			
Grp Volume(v), veh/h				0	2041	1122	144	81	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1851	1781	1777	0			
Q Serve(g_s), s				0.0	44.5	45.7	8.0	4.3	0.0			
Cycle Q Clear(g_c), s				0.0	44.5	45.7	8.0	4.3	0.0			
Prop In Lane				0.00		0.05	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2485	1351	313	312	0			
V/C Ratio(X)				0.00	0.82	0.83	0.46	0.26	0.00			
Avail Cap(c_a), veh/h				0	2485	1351	313	312	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	10.0	10.2	40.7	39.2	0.0			
Incr Delay (d2), s/veh				0.0	3.2	6.0	4.8	2.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	14.8	17.5	3.9	2.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	13.2	16.2	45.5	41.2	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					3163			225				
Approach Delay, s/veh					14.3			44.0				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						47.7		10.0				
Green Ext Time (p_c), s						30.3		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											16.3	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	135	480	1	100	0	0	0	17
Future Vol, veh/h	0	0	0	0	135	480	1	100	0	0	0	17
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	139	495	1	103	0	0	0	18
Major/Minor	Major2			Minor1			Minor2					
Conflicting Flow All				-	-	0	91	639	-	-	-	343
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	91	639	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	883	392	0	0	0	653
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	906	469	0	0	0	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	859	390	-	-	-	650
Mov Cap-2 Maneuver				-	-	-	859	390	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	882	467	-	-	-	-
Approach	WB			NB			SB					
HCM Control Delay, s	0			17.5			10.7					
HCM LOS				C			B					
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	390	-	-	650								
HCM Lane V/C Ratio	0.264	-	-	0.027								
HCM Control Delay (s)	17.5	-	-	10.7								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	697	83	1360	757	0
Future Volume (veh/h)	0	0	0	0	0	0	0	697	83	1360	757	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	792	94	1545	860	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1068	331	3509	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.21	0.21	0.93	1.00	0.00
Sat Flow, veh/h		0					0	5149	1544	5023	1826	0
Grp Volume(v), veh/h		0.0					0	792	94	1545	860	0
Grp Sat Flow(s),veh/h/ln							0	1662	1544	1674	1826	0
Q Serve(g_s), s							0.0	16.3	5.6	4.1	0.0	0.0
Cycle Q Clear(g_c), s							0.0	16.3	5.6	4.1	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1068	331	3509	1740	0
V/C Ratio(X)							0.00	0.74	0.28	0.44	0.49	0.00
Avail Cap(c_a), veh/h							0	1205	373	3509	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.90	0.90	0.00
Uniform Delay (d), s/veh							0.0	40.4	36.2	1.3	0.0	0.0
Incr Delay (d2), s/veh							0.0	3.3	1.2	0.1	0.9	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	6.7	2.2	0.8	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	43.7	37.4	1.4	0.9	0.0
LnGrp LOS							A	D	D	A	A	A
Approach Vol, veh/h								886			2405	
Approach Delay, s/veh								43.0			1.2	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	81.2	28.8					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	6.1	18.3					2.0					
Green Ext Time (p_c), s	7.5	5.2					9.5					
Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	54	1305	75	0	0	0	0	363	196	90	338	0
Future Volume (veh/h)	54	1305	75	0	0	0	0	363	196	90	338	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	59	1434	82				0	399	215	99	371	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	120	3092	945				0	626	280	129	1513	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.14	0.59	0.00
Sat Flow, veh/h	196	5069	1549				0	3572	1521	1781	5274	0
Grp Volume(v), veh/h	560	933	82				0	399	215	99	371	0
Grp Sat Flow(s),veh/h/ln	1861	1702	1549				0	1702	1521	1781	1702	0
Q Serve(g_s), s	29.4	26.5	4.7				0.0	11.9	14.8	5.9	3.8	0.0
Cycle Q Clear(g_c), s	29.4	26.5	4.7				0.0	11.9	14.8	5.9	3.8	0.0
Prop In Lane	0.11		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1135	2077	945				0	626	280	129	1513	0
V/C Ratio(X)	0.49	0.45	0.09				0.00	0.64	0.77	0.77	0.25	0.00
Avail Cap(c_a), veh/h	1135	2077	945				0	901	402	317	2442	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.47	0.47	0.47				0.00	1.00	1.00	0.89	0.89	0.00
Uniform Delay (d), s/veh	28.9	27.7	19.0				0.0	41.5	42.7	46.1	16.5	0.0
Incr Delay (d2), s/veh	0.7	0.3	0.1				0.0	1.2	6.0	3.2	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
%ile BackOfQ(50%),veh/ln	4.8	12.1	1.7				0.0	5.0	5.9	2.5	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	28.0	19.1				0.0	42.7	48.6	49.3	16.6	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1575						614				470	
Approach Delay, s/veh	28.1						44.8				23.5	
Approach LOS	C						D				C	
Timer - Assigned Phs	2		4				7		8			
Phs Duration (G+Y+Rc), s	72.0		38.0				12.4		25.6			
Change Period (Y+Rc), s	4.9		5.4				4.4		* 5.4			
Max Green Setting (Gmax), s	47.1		52.6				19.6		* 29			
Max Q Clear Time (g_c+I1), s	31.4		5.8				7.9		16.8			
Green Ext Time (p_c), s	11.8		2.1				0.1		3.5			

Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑								
Traffic Volume (veh/h)	0	1563	32	0	0	0	0	0	0	145	316	0
Future Volume (veh/h)	0	1563	32	0	0	0	0	0	0	145	316	0
Initial Q (Qb), veh	0	0	0	0 0 0								
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00 1.00								
Parking Bus, Adj	1.00	1.00	1.00	1.00 1.00 1.00								
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	0	1870	1870	1870 1870 0								
Adj Flow Rate, veh/h	0	1681	34	156 340 0								
Peak Hour Factor	0.93	0.93	0.93	0.93 0.93 0.93								
Percent Heavy Veh, %	0	2	2	2 2 0								
Cap, veh/h	0	3001	61	499 1207 0								
Arrive On Green	0.00	0.19	0.19	0.11 0.11 0.00								
Sat Flow, veh/h	0	5318	104	1521 3845 0								
Grp Volume(v), veh/h	0	1111	604	184 312 0								
Grp Sat Flow(s),veh/h/ln	0	1702	1850	1794 1702 0								
Q Serve(g_s), s	0.0	32.5	32.5	10.4 9.3 0.0								
Cycle Q Clear(g_c), s	0.0	32.5	32.5	10.4 9.3 0.0								
Prop In Lane	0.00		0.06	0.85 0.00								
Lane Grp Cap(c), veh/h	0	1984	1078	589 1117 0								
V/C Ratio(X)	0.00	0.56	0.56	0.31 0.28 0.00								
Avail Cap(c_a), veh/h	0	1984	1078	589 1117 0								
HCM Platoon Ratio	1.00	0.33	0.33	0.33 0.33 1.00								
Upstream Filter(l)	0.00	1.00	1.00	1.00 1.00 0.00								
Uniform Delay (d), s/veh	0.0	31.7	31.7	37.6 37.1 0.0								
Incr Delay (d2), s/veh	0.0	1.1	2.1	1.4 0.6 0.0								
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0 0.0 0.0								
%ile BackOfQ(50%),veh/ln	0.0	15.1	16.7	5.2 4.3 0.0								
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.8	33.8	39.0 37.7 0.0								
LnGrp LOS	A	C	C	D D A								
Approach Vol, veh/h	1715			496								
Approach Delay, s/veh	33.1			38.2								
Approach LOS	C			D								
Timer - Assigned Phs	2			4								
Phs Duration (G+Y+Rc), s	69.0			41.0								
Change Period (Y+Rc), s	4.9			4.9								
Max Green Setting (Gmax), s	64.1			36.1								
Max Q Clear Time (g_c+l1), s	34.5			12.4								
Green Ext Time (p_c), s	5.5			1.3								
Intersection Summary												
HCM 6th Ctrl Delay	34.3											
HCM 6th LOS	C											

SDCRAA ADP EIR
28: India St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	49	1915	0	0	0	0	0	96	212	0	0	0
Future Volume (veh/h)	49	1915	0	0	0	0	0	96	212	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00				
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	53	2059	0				0	103	228			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	77	3184	0				0	519	433			
Arrive On Green	0.20	0.20	0.00				0.00	0.29	0.29			
Sat Flow, veh/h	124	5312	0				0	1870	1485			
Grp Volume(v), veh/h	794	1318	0				0	103	228			
Grp Sat Flow(s),veh/h/ln	1864	1702	0				0	1777	1485			
Q Serve(g_s), s	43.4	38.9	0.0				0.0	4.8	14.1			
Cycle Q Clear(g_c), s	43.4	38.9	0.0				0.0	4.8	14.1			
Prop In Lane	0.07		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1154	2107	0				0	519	433			
V/C Ratio(X)	0.69	0.63	0.00				0.00	0.20	0.53			
Avail Cap(c_a), veh/h	1154	2107	0				0	519	433			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	33.9	32.1	0.0				0.0	29.3	32.6			
Incr Delay (d2), s/veh	3.4	1.4	0.0				0.0	0.9	4.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	22.6	18.1	0.0				0.0	2.2	5.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	33.5	0.0				0.0	30.1	37.1			
LnGrp LOS	D	C	A				A	C	D			
Approach Vol, veh/h	2112							331				
Approach Delay, s/veh	34.9							34.9				
Approach LOS	C							C				
Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	73.0							37.0				
Change Period (Y+Rc), s	4.9							4.9				
Max Green Setting (Gmax), s	68.1							32.1				
Max Q Clear Time (g_c+I1), s	45.4							16.1				
Green Ext Time (p_c), s	16.6							2.0				
Intersection Summary												
HCM 6th Ctrl Delay			34.9									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2246	73	0	0	0	0	0	0	203	351	0
Future Volume (veh/h)	0	2246	73	0	0	0	0	0	0	203	351	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2292	74							207	358	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3238	104							487	972	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5249	163							1781	3647	0
Grp Volume(v), veh/h	0	1532	834							207	358	0
Grp Sat Flow(s),veh/h/ln	0	1702	1840							1781	1777	0
Q Serve(g_s), s	0.0	45.9	46.3							12.1	10.4	0.0
Cycle Q Clear(g_c), s	0.0	45.9	46.3							12.1	10.4	0.0
Prop In Lane	0.00		0.09							1.00		0.00
Lane Grp Cap(c), veh/h	0	2169	1173							487	972	0
V/C Ratio(X)	0.00	0.71	0.71							0.42	0.37	0.00
Avail Cap(c_a), veh/h	0	2169	1173							487	972	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.9	34.0							41.8	41.1	0.0
Incr Delay (d2), s/veh	0.0	2.0	3.7							2.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	21.4	23.9							6.2	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.9	37.7							44.5	42.2	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2366									565	
Approach Delay, s/veh		36.5									43.0	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		75.0	35.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		70.1	30.1									
Max Q Clear Time (g_c+l1), s		48.3	14.1									
Green Ext Time (p_c), s		17.7	2.8									
Intersection Summary												
HCM 6th Ctrl Delay			37.8									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	169	2102	0	0	0	0	0	92	37	0	0	0
Future Volume (veh/h)	169	2102	0	0	0	0	0	92	37	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	184	2285	0				0	100	40			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	258	3426	0				0	528	201			
Arrive On Green	0.23	0.23	0.00				0.00	0.21	0.21			
Sat Flow, veh/h	368	5057	0				0	2610	958			
Grp Volume(v), veh/h	927	1542	0				0	69	71			
Grp Sat Flow(s),veh/h/ln	1852	1702	0				0	1777	1698			
Q Serve(g_s), s	50.7	45.1	0.0				0.0	3.5	3.8			
Cycle Q Clear(g_c), s	50.7	45.1	0.0				0.0	3.5	3.8			
Prop In Lane	0.20		0.00				0.00		0.56			
Lane Grp Cap(c), veh/h	1298	2386	0				0	373	357			
V/C Ratio(X)	0.71	0.65	0.00				0.00	0.19	0.20			
Avail Cap(c_a), veh/h	1298	2386	0				0	373	357			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	32.1	30.0	0.0				0.0	35.7	35.8			
Incr Delay (d2), s/veh	3.4	1.4	0.0				0.0	1.1	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.2	20.9	0.0				0.0	1.7	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	31.3	0.0				0.0	36.8	37.1			
LnGrp LOS	D	C	A				A	D	D			
Approach Vol, veh/h		2469						140				
Approach Delay, s/veh		32.9						36.9				
Approach LOS		C						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		82.0						28.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		77.1						23.1				
Max Q Clear Time (g_c+I1), s		52.7						5.8				
Green Ext Time (p_c), s		20.1						0.7				
Intersection Summary												
HCM 6th Ctrl Delay			33.1									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	48	990	1109	74	83	193
Future Volume (veh/h)	48	990	1109	74	83	193
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	50	1031	1155	77	86	201
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	65	3808	3291	219	502	230
Arrive On Green	0.04	0.76	1.00	1.00	0.15	0.15
Sat Flow, veh/h	1781	5149	4931	318	3456	1585
Grp Volume(v), veh/h	50	1031	805	427	86	201
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1761	1728	1585
Q Serve(g_s), s	3.3	7.3	0.0	0.0	2.6	14.6
Cycle Q Clear(g_c), s	3.3	7.3	0.0	0.0	2.6	14.6
Prop In Lane	1.00			0.18	1.00	1.00
Lane Grp Cap(c), veh/h	65	3808	2295	1216	502	230
V/C Ratio(X)	0.78	0.27	0.35	0.35	0.17	0.87
Avail Cap(c_a), veh/h	190	3808	2295	1216	1145	525
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.92	0.92	1.00	1.00
Uniform Delay (d), s/veh	56.4	4.1	0.0	0.0	44.2	49.4
Incr Delay (d2), s/veh	6.7	0.2	0.4	0.7	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.9	0.1	0.2	1.1	12.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	63.1	4.3	0.4	0.7	44.3	53.4
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1081	1232		287	
Approach Delay, s/veh		7.0	0.5		50.6	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		95.9		22.0	8.7	87.3
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 68		39.1	12.6	51.2
Max Q Clear Time (g_c+I1), s		9.3		16.6	5.3	2.0
Green Ext Time (p_c), s		23.9		0.5	0.0	25.4

Intersection Summary

HCM 6th Ctrl Delay	8.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	109	965	13	12	1158	4	0	12	13	29	0	26
Future Volume (veh/h)	109	965	13	12	1158	4	0	12	13	29	0	26
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		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	995	13	12	1194	0	0	12	13	30	0	27
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	671	3614	47	60	1787		34	15	17	227	0	102
Arrive On Green	0.75	1.00	1.00	0.03	0.36	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5069	66	1781	4985	1585	1781	804	871	3456	0	1556
Grp Volume(v), veh/h	112	652	356	12	1194	0	0	0	25	30	0	27
Grp Sat Flow(s), veh/h/ln	1781	1662	1812	1781	1662	1585	1781	0	1676	1728	0	1556
Q Serve(g_s), s	2.1	0.0	0.0	0.8	23.8	0.0	0.0	0.0	1.8	1.0	0.0	1.9
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.8	23.8	0.0	0.0	0.0	1.8	1.0	0.0	1.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	671	2369	1292	60	1787		34	0	32	227	0	102
V/C Ratio(X)	0.17	0.28	0.28	0.20	0.67		0.00	0.00	0.79	0.13	0.00	0.26
Avail Cap(c_a), veh/h	671	2369	1292	69	1787		92	0	87	996	0	448
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	0.0	55.4	31.9	0.0	0.0	0.0	57.6	52.0	0.0	52.4
Incr Delay (d2), s/veh	0.0	0.3	0.5	0.6	2.0	0.0	0.0	0.0	14.6	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 BackOfQ(50%), veh/ln	0.8	0.1	0.2	0.3	9.5	0.0	0.0	0.0	0.9	0.4	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.4	0.3	0.5	56.0	33.9	0.0	0.0	0.0	72.2	52.1	0.0	52.9
LnGrp LOS	A	A	A	E	C		A	A	E	D	A	D
Approach Vol, veh/h	1120			1206			25			57		
Approach Delay, s/veh	1.3			34.2			72.2			52.5		
Approach LOS	A			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.8			12.6	50.1	48.1		7.1				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.6	53.4		34.0	15.6	* 42		6.1				
Max Q Clear Time (g_c+I), s	12.8	2.0		3.9	4.1	25.8		3.8				
Green Ext Time (p_c), s	0.0	15.6		0.1	0.1	10.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay 19.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
33: Harbor Island Dr & N Harbor Dr

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	860	207	591	1408	0	178	37	379	0	28	145
Future Volume (veh/h)	235	860	207	591	1408	0	178	37	379	0	28	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	887	213	609	1452	0	184	38	0	0	29	149
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	629	2265	892	667	1794	0	428	232		0	113	155
Arrive On Green	0.35	0.45	0.45	0.19	0.29	0.00	0.12	0.12	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1531	3456	6537	0	3456	1870	1585	0	1870	2581
Grp Volume(v), veh/h	242	887	213	609	1452	0	184	38	0	0	29	149
Grp Sat Flow(s), veh/h/ln	1781	1662	1531	1728	1570	0	1728	1870	1585	0	1870	1291
Q Serve(g_s), s	12.0	13.9	8.0	20.4	25.3	0.0	5.8	2.1	0.0	0.0	1.7	6.8
Cycle Q Clear(g_c), s	12.0	13.9	8.0	20.4	25.3	0.0	5.8	2.1	0.0	0.0	1.7	6.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	629	2265	892	667	1794	0	428	232		0	113	155
V/C Ratio(X)	0.38	0.39	0.24	0.91	0.81	0.00	0.43	0.16		0.00	0.26	0.96
Avail Cap(c_a), veh/h	629	2265	892	726	1794	0	1084	586		0	113	155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	21.4	12.2	46.7	39.2	0.0	47.8	46.2	0.0	0.0	52.9	55.3
Incr Delay (d2), s/veh	0.1	0.5	0.6	1.7	0.4	0.0	0.2	0.1	0.0	0.0	1.2	59.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	5.3	3.7	8.6	9.4	0.0	2.5	1.0	0.0	0.0	0.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	21.9	12.8	48.4	39.5	0.0	48.1	46.3	0.0	0.0	54.1	115.2
LnGrp LOS	C	C	B	D	D	A	D	D		A	D	F
Approach Vol, veh/h	1342			2061			222			178		
Approach Delay, s/veh	21.7			42.2			47.8			105.3		
Approach LOS	C			D			D			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.2	59.3		12.0	47.4	39.1		19.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	24.8	29.2		7.1	20.6	* 34		37.0				
Max Q Clear Time (g_c+Q), s	22.4	15.9		8.8	14.0	27.3		7.8				
Green Ext Time (p_c), s	0.4	8.3		0.0	0.2	5.7		0.4				

Intersection Summary

HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	5	16	4	6	314	12	196	9	518	306	61
Future Volume (veh/h)	35	5	16	4	6	314	12	196	9	518	306	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	15	17	0	0	342	13	209	10	551	326	65
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	33	38	0	313	520	117	650	31	604	1358	267
Arrive On Green	0.04	0.04	0.04	0.00	0.00	0.17	0.07	0.19	0.19	0.34	0.46	0.46
Sat Flow, veh/h	1781	785	890	0	1870	3104	1781	3441	164	1781	2940	577
Grp Volume(v), veh/h	30	0	32	0	0	342	13	107	112	551	195	196
Grp Sat Flow(s), veh/h/ln	1781	0	1675	0	1870	1552	1781	1777	1828	1781	1777	1741
Q Serve(g_s), s	1.0	0.0	1.1	0.0	0.0	6.3	0.4	3.2	3.2	18.1	4.0	4.2
Cycle Q Clear(g_c), s	1.0	0.0	1.1	0.0	0.0	6.3	0.4	3.2	3.2	18.1	4.0	4.2
Prop In Lane	1.00		0.53	0.00		1.00	1.00		0.09	1.00		0.33
Lane Grp Cap(c), veh/h	76	0	71	0	313	520	117	335	345	604	821	804
V/C Ratio(X)	0.39	0.00	0.45	0.00	0.00	0.66	0.11	0.32	0.32	0.91	0.24	0.24
Avail Cap(c_a), veh/h	117	0	110	0	889	1475	117	845	869	788	1515	1484
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	28.5	0.0	0.0	23.8	26.8	21.4	21.4	19.3	9.9	9.9
Incr Delay (d2), s/veh	2.5	0.0	3.2	0.0	0.0	0.5	0.2	0.4	0.4	10.9	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	0.0	0.5	0.0	0.0	2.2	0.2	1.2	1.3	8.3	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.9	0.0	31.7	0.0	0.0	24.3	27.0	21.8	21.8	30.2	10.0	10.1
LnGrp LOS	C	A	C	A	A	C	C	C	C	C	B	B
Approach Vol, veh/h	62			342			232			942		
Approach Delay, s/veh	31.3			24.3			22.1			21.8		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.7	15.5		6.6	8.0	32.2		14.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	27.0	29.0		4.0	4.0	52.0		29.0				
Max Q Clear Time (g_c+Tb), s	20.1	5.2		3.1	2.4	6.2		8.3				
Green Ext Time (p_c), s	0.6	0.9		0.0	0.0	1.9		0.8				

Intersection Summary

HCM 6th Ctrl Delay 22.8

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	148	2	4	65	121	197
Future Volume (veh/h)	148	2	4	65	121	197
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	154	0	4	0	125	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	767	403	711		271	
Arrive On Green	0.22	0.00	0.38	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	154	0	4	0	125	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.3	0.0	0.0	0.0	1.3	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.0	1.3	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	767	403	711		271	
V/C Ratio(X)	0.20	0.00	0.01		0.46	
Avail Cap(c_a), veh/h	1064	559	711		1220	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.8	0.0	7.1	0.0	16.2	0.0
Incr Delay (d2), s/veh	0.1	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
%ile BackOfQ(50%), veh/ln	0.4	0.0	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.0	0.0	7.1	0.0	17.4	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		154	4	A	125	A
Approach Delay, s/veh		12.0	7.1		17.4	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		11.9		6.9		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+I1), s		3.3		3.3		2.0
Green Ext Time (p_c), s		0.3		0.2		0.0

Intersection Summary

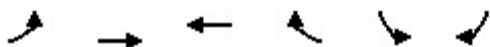
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

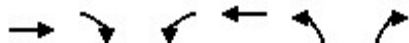
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	9	115	58	0	0	1
Future Vol, veh/h	9	115	58	0	0	1
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	134	67	0	0	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	74	0	-	0	162	43
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	88	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1524	-	-	-	813	1018
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	925	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1514	-	-	-	796	1009
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	919	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		8.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1514	-	-	-	1009	
HCM Lane V/C Ratio	0.007	-	-	-	0.001	
HCM Control Delay (s)	7.4	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Volume (veh/h)	0	2457	3283	0	0	0
Future Volume (veh/h)	0	2457	3283	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2671	3568	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	6912
Grp Volume(v), veh/h	0	2671	3568	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	773	7503
V/C Ratio(X)	0.00	1.04	1.39	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	773	7503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	28.5	176.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.3	35.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	42.0	189.8	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		2671	3568	1077	1255	04
Approach Delay, s/veh		42.0	189.8		8.1	
Approach LOS		D	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	2985	47	122	1549	27	166
Future Volume (veh/h)	2985	47	122	1549	27	166
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3176	50	130	1648	29	177
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4286	1031	183	4852	251	201
Arrive On Green	0.68	0.68	0.11	1.00	0.14	0.14
Sat Flow, veh/h	6537	1511	3456	6537	1781	1427
Grp Volume(v), veh/h	3176	50	130	1648	29	177
Grp Sat Flow(s), veh/h/ln	1570	1511	1728	1570	1781	1427
Q Serve(g_s), s	38.3	1.3	4.3	0.0	1.7	14.4
Cycle Q Clear(g_c), s	38.3	1.3	4.3	0.0	1.7	14.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4286	1031	183	4852	251	201
V/C Ratio(X)	0.74	0.05	0.71	0.34	0.12	0.88
Avail Cap(c_a), veh/h	4286	1031	258	4852	485	388
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	12.0	6.2	51.9	0.0	44.3	49.7
Incr Delay (d2), s/veh	0.1	0.0	2.0	0.2	0.1	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.4	1.8	0.1	0.8	5.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.2	6.2	53.9	0.2	44.3	54.5
LnGrp LOS	B	A	D	A	D	D
Approach Vol, veh/h	3226			1778	206	
Approach Delay, s/veh	12.1			4.1	53.1	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	85.8			96.5	21.5	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	62.5			75.7	32.1	
Max Q Clear Time (g_c+1/3), s	40.3			2.0	16.4	
Green Ext Time (p_c), s	0.0	22.1		46.9	0.3	

Intersection Summary

HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2030 with Project (Alt 4)

Timing Plan: AM PEAK



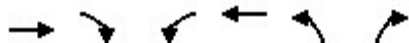
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘			↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	
Traffic Volume (veh/h)	11	2986	0	6	1495	72	0	0	0	5	0	5
Future Volume (veh/h)	11	2986	0	6	1495	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	3143	0	6	1574	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4109	0	60	5236	253	0	34	0	93	0	28
Arrive On Green	0.01	1.00	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	6180	298	0	1870	0	1752	0	1571
Grp Volume(v), veh/h	12	3143	0	6	1200	450	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1768	0	1870	0	1752	0	1571
Q Serve(g_s), s	0.8	0.0	0.0	0.4	6.2	6.2	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	6.2	6.2	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.17	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4109	0	60	3991	1498	0	34	0	93	0	28
V/C Ratio(X)	0.61	0.76	0.00	0.10	0.30	0.30	0.00	0.00	0.00	0.05	0.00	0.18
Avail Cap(c_a), veh/h	60	4109	0	60	3991	1498	0	507	0	536	0	426
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.00	0.93	0.93	0.93	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	0.0	0.0	55.3	1.8	1.8	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	6.9	0.9	0.0	0.2	0.2	0.5	0.0	0.0	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 BackOfQ(50%),veh/ln	0.4	0.3	0.0	0.2	0.8	1.1	0.0	0.0	0.0	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	0.9	0.0	55.5	2.0	2.3	0.0	0.0	0.0	57.1	0.0	58.2
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3155			1656			0			10		
Approach Delay, s/veh	1.1			2.3			0.0			57.6		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.8	8.2		0.0				
Green Ext Time (p_c), s	0.0	64.5		0.0	0.0	36.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	2950	3	29	1686	0	19
Future Volume (veh/h)	2950	3	29	1686	0	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3172	3	31	1813	0	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3898	4	46	4216	0	29
Arrive On Green	0.76	0.76	0.03	0.85	0.00	0.02
Sat Flow, veh/h	5307	5	1781	5149	0	1521
Grp Volume(v), veh/h	2049	1126	31	1813	0	21
Grp Sat Flow(s), veh/h/ln	1662	1825	1781	1662	0	1597
Q Serve(g_s), s	27.6	27.7	1.2	6.3	0.0	0.9
Cycle Q Clear(g_c), s	27.6	27.7	1.2	6.3	0.0	0.9
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2519	1383	46	4216	0	31
V/C Ratio(X)	0.81	0.81	0.68	0.43	0.00	0.69
Avail Cap(c_a), veh/h	2523	1385	100	4374	0	407
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.4	5.4	34.3	1.3	0.0	34.6
Incr Delay (d2), s/veh	2.7	4.8	6.3	0.3	0.0	24.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.4	0.6	0.1	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	10.2	40.6	1.6	0.0	58.7
LnGrp LOS	A	B	D	A	A	E
Approach Vol, veh/h	3175			1844	21	
Approach Delay, s/veh	8.9			2.2	58.7	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	62.2	59.0		65.2	5.8	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	40.0	53.9		62.3	18.1	
Max Q Clear Time (g_c+I1), s	13.2	29.7		8.3	2.9	
Green Ext Time (p_c), s	0.0	24.1		44.0	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	31.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	202	0	0	1559	712
Future Vol, veh/h	0	202	0	0	1559	712
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	224	0	0	1732	791

Major/Minor	Minor2		Major2	
Conflicting Flow All	2138	1272	-	0
Stage 1	2138	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	79	~ 136	-	-
Stage 1	46	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	77	~ 135	-	-
Mov Cap-2 Maneuver	77	-	-	-
Stage 1	46	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s\$	386.1	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	135	-	-
HCM Lane V/C Ratio	-	1.663	-	-
HCM Control Delay (s)	0\$	386.1	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	16.3	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2030 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	129	765	121	68	845	326	50	34	26	189	89	130
Future Volume (veh/h)	129	765	121	68	845	326	50	34	26	189	89	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	145	860	136	76	949	366	56	38	29	212	100	146
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	2892	875	96	2680	812	249	223	173	347	442	385
Arrive On Green	0.19	1.00	1.00	0.11	1.00	1.00	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	5106	1545	1781	5106	1548	758	898	695	1321	1777	1546
Grp Volume(v), veh/h	145	860	136	76	949	366	58	0	65	212	100	146
Grp Sat Flow(s),veh/h/ln	1781	1702	1545	1781	1702	1548	784	0	1567	1321	1777	1546
Q Serve(g_s), s	9.3	0.0	0.0	4.9	0.0	0.0	5.1	0.0	3.9	17.7	5.3	9.2
Cycle Q Clear(g_c), s	9.3	0.0	0.0	4.9	0.0	0.0	14.4	0.0	3.9	21.5	5.3	9.2
Prop In Lane	1.00		1.00	1.00		1.00	0.97		0.44	1.00		1.00
Lane Grp Cap(c), veh/h	170	2892	875	96	2680	812	255	0	390	347	442	385
V/C Ratio(X)	0.85	0.30	0.16	0.79	0.35	0.45	0.23	0.00	0.17	0.61	0.23	0.38
Avail Cap(c_a), veh/h	319	2892	875	319	2680	812	313	0	469	413	532	462
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.93	0.93	0.93	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	0.0	0.0	52.0	0.0	0.0	42.5	0.0	34.7	43.2	35.3	36.8
Incr Delay (d2), s/veh	4.0	0.2	0.3	4.9	0.3	1.7	0.2	0.0	0.1	5.1	0.7	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.1	0.1	2.2	0.1	0.4	1.5	0.0	1.5	6.2	2.4	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	0.2	0.3	56.9	0.3	1.7	42.7	0.0	34.8	48.3	36.0	38.5
LnGrp LOS	D	A	A	E	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1141			1391			123			458	
Approach Delay, s/veh		6.7			3.8			38.5			42.5	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	72.9		34.3	15.7	68.0		34.3				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	21.1	* 47		35.3	21.1	46.2		35.3				
Max Q Clear Time (g_c+I1), s	6.9	2.0		23.5	11.3	2.0		16.4				
Green Ext Time (p_c), s	0.1	13.1		3.6	0.1	24.5		0.4				

Intersection Summary

HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	504	0	0	621	359	0	0	0	499	0	25
Future Volume (veh/h)	15	504	0	0	621	359	0	0	0	499	0	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	593	0	0	731	0	0	0	0	614	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	2501	0	2	2314		0	2	1	698	367	0
Arrive On Green	0.02	0.70	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.20	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3557	1870	0
Grp Volume(v), veh/h	18	593	0	0	731	0	0	0	0	614	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1779	1870	0
Q Serve(g_s), s	1.2	7.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	19.8	0.0	0.0
Cycle Q Clear(g_c), s	1.2	7.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	19.8	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	27	2501	0	2	2314		0	2	1	698	367	0
V/C Ratio(X)	0.67	0.24	0.00	0.00	0.32		0.00	0.00	0.00	0.88	0.00	0.00
Avail Cap(c_a), veh/h	62	2501	0	62	2314		0	476	403	1115	586	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.78	0.00	0.00
Uniform Delay (d), s/veh	57.8	6.2	0.0	0.0	9.0	0.0	0.0	0.0	0.0	46.1	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	2.4	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 BackOfQ(50%),veh/ln	0.6	2.3	0.0	0.0	3.7	0.0	0.0	0.0	0.0	8.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	6.4	0.0	0.0	9.4	0.0	0.0	0.0	0.0	48.5	0.0	0.0
LnGrp LOS	E	A	A	A	A		A	A	A	D	A	A
Approach Vol, veh/h	611				731	A	0				614	
Approach Delay, s/veh	8.3				9.4		0.0				48.5	
Approach LOS	A				A						D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	88.9		29.1	6.2	82.8		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s		* 27		37.0	4.1	25.8		30.0				
Max Q Clear Time (g_c+I), s		9.0		21.8	3.2	12.7		0.0				
Green Ext Time (p_c), s	0.0	7.8		1.1	0.0	6.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay 21.3
HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	330	356	176	88	261	105	114	651	92	133	864	106
Future Volume (veh/h)	330	356	176	88	261	105	114	651	92	133	864	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	347	375	185	93	275	111	120	685	97	140	909	112
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	372	624	303	116	441	281	175	1373	194	195	1585	692
Arrive On Green	0.21	0.27	0.27	0.07	0.12	0.12	0.05	0.44	0.44	0.06	0.45	0.45
Sat Flow, veh/h	1781	2297	1113	1781	3554	1539	3456	3121	442	3456	3554	1552
Grp Volume(v), veh/h	347	289	271	93	275	111	120	390	392	140	909	112
Grp Sat Flow(s),veh/h/ln	1781	1777	1633	1781	1777	1539	1728	1777	1786	1728	1777	1552
Q Serve(g_s), s	22.2	16.4	16.8	6.0	8.5	4.4	4.0	18.2	18.3	4.6	22.1	2.3
Cycle Q Clear(g_c), s	22.2	16.4	16.8	6.0	8.5	4.4	4.0	18.2	18.3	4.6	22.1	2.3
Prop In Lane	1.00		0.68	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	372	483	444	116	441	281	175	782	786	195	1585	692
V/C Ratio(X)	0.93	0.60	0.61	0.80	0.62	0.40	0.69	0.50	0.50	0.72	0.57	0.16
Avail Cap(c_a), veh/h	378	623	573	193	888	474	286	782	786	214	1585	692
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	36.7	36.9	53.5	48.2	18.8	54.2	23.3	23.3	53.8	23.9	4.1
Incr Delay (d2), s/veh	29.2	0.4	0.5	4.5	0.5	0.3	1.8	2.3	2.3	7.9	1.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	7.1	6.8	2.8	3.8	1.8	1.8	8.1	8.1	2.2	9.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	37.2	37.4	58.0	48.8	19.1	56.0	25.6	25.6	61.7	25.4	4.6
LnGrp LOS	E	D	D	E	D	B	E	C	C	E	C	A
Approach Vol, veh/h	907			479			902			1161		
Approach Delay, s/veh	51.4			43.7			29.6			27.8		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.0	56.3	12.0	36.7	10.3	57.0	29.4	19.3				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax),s	3	* 37	12.6	40.7	9.6	33.8	24.6	* 29				
Max Q Clear Time (g_c+10),s	10.6	20.3	8.0	18.8	6.0	24.1	24.2	10.5				
Green Ext Time (p_c), s	0.0	1.7	0.0	1.3	0.0	2.1	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	264	91	154	196	72	128	109	197	59	92	67
Future Volume (veh/h)	47	264	91	154	196	72	128	109	197	59	92	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	281	97	164	209	77	136	116	210	63	98	71
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	1216	649	239	702	551	169	1058	563	82	884	366
Arrive On Green	0.04	0.34	0.34	0.07	0.38	0.38	0.09	0.30	0.30	0.05	0.25	0.25
Sat Flow, veh/h	1781	3554	1456	3456	1870	1467	1781	3554	1523	1781	3554	1471
Grp Volume(v), veh/h	50	281	97	164	209	77	136	116	210	63	98	71
Grp Sat Flow(s),veh/h/ln	1781	1777	1456	1728	1870	1467	1781	1777	1523	1781	1777	1471
Q Serve(g_s), s	2.7	5.4	3.8	4.4	7.5	3.3	7.1	2.3	9.7	3.3	2.0	3.6
Cycle Q Clear(g_c), s	2.7	5.4	3.8	4.4	7.5	3.3	7.1	2.3	9.7	3.3	2.0	3.6
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	64	1216	649	239	702	551	169	1058	563	82	884	366
V/C Ratio(X)	0.78	0.23	0.15	0.68	0.30	0.14	0.81	0.11	0.37	0.77	0.11	0.19
Avail Cap(c_a), veh/h	559	1488	760	1085	783	614	559	1488	748	559	1488	616
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	22.4	16.2	43.4	21.0	19.7	42.4	24.4	22.2	45.1	27.7	28.3
Incr Delay (d2), s/veh	7.2	0.1	0.1	1.3	0.1	0.1	3.4	0.0	0.4	5.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	1.3	1.9	3.2	1.1	3.3	1.0	3.5	1.6	0.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	22.6	16.3	44.7	21.1	19.7	45.8	24.4	22.6	50.7	27.7	28.4
LnGrp LOS	D	C	B	D	C	B	D	C	C	D	C	C
Approach Vol, veh/h		428			450			462			232	
Approach Delay, s/veh		24.7			29.5			29.9			34.2	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	38.6	14.5	30.5	8.9	41.8	9.8	35.1				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	6.4	7.4	9.1	5.6	4.7	9.5	5.3	11.7				
Green Ext Time (p_c), s	0.3	2.8	0.2	0.5	0.0	1.0	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			29.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	9	0	22	26	2	47	32	333	28	47	270	25
Future Volume (veh/h)	9	0	22	26	2	47	32	333	28	47	270	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	24	29	2	52	35	366	31	52	297	27
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	51	296	538	31	493	58	1387	115	79	1436	128
Arrive On Green	0.28	0.00	0.28	0.28	0.28	0.28	0.03	0.29	0.29	0.04	0.30	0.30
Sat Flow, veh/h	264	185	1076	1281	113	1537	1781	4785	398	1781	4757	423
Grp Volume(v), veh/h	34	0	0	31	0	52	35	258	139	52	211	113
Grp Sat Flow(s), veh/h/ln	1525	0	0	1395	0	1537	1781	1702	1778	1781	1702	1776
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.9	0.7	2.2	2.3	1.1	1.7	1.8
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.5	0.0	0.9	0.7	2.2	2.3	1.1	1.7	1.8
Prop In Lane	0.29		0.71	0.94		1.00	1.00		0.22	1.00		0.24
Lane Grp Cap(c), veh/h	543	0	0	569	0	493	58	987	516	79	1028	536
V/C Ratio(X)	0.06	0.00	0.00	0.05	0.00	0.11	0.60	0.26	0.27	0.66	0.20	0.21
Avail Cap(c_a), veh/h	1695	0	0	1649	0	1703	1419	5425	2834	1419	5425	2830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	0.0	0.0	10.1	0.0	9.0	18.0	10.3	10.3	17.7	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.2	0.4	3.4	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 BackOfQ(50%), veh/ln	0.2	0.0	0.0	0.1	0.0	0.2	0.3	0.7	0.7	0.5	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.1	0.0	0.0	10.1	0.0	9.1	21.7	10.5	10.7	21.1	9.9	10.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	B
Approach Vol, veh/h		34			83			432			376	
Approach Delay, s/veh		10.1			9.4			11.4			11.5	
Approach LOS		B			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	16.3		15.3	5.6	16.8		15.3				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.5	4.3		2.6	2.7	3.8		2.9				
Green Ext Time (p_c), s	0.1	3.8		0.1	0.0	2.6		0.2				

Intersection Summary

HCM 6th Ctrl Delay 11.2

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	25	44	49	38	17	190	586	65	29	482	101
Future Volume (veh/h)	16	25	44	49	38	17	190	586	65	29	482	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.89	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	27	48	53	41	18	207	637	71	32	524	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	537	407	69	535	405	251	1479	628	42	893	186
Arrive On Green	0.04	0.29	0.29	0.04	0.29	0.29	0.14	0.42	0.42	0.02	0.31	0.31
Sat Flow, veh/h	1781	1870	1416	1781	1870	1416	1781	3554	1508	1781	2893	604
Grp Volume(v), veh/h	17	27	48	53	41	18	207	637	71	32	321	313
Grp Sat Flow(s),veh/h/ln	1781	1870	1416	1781	1870	1416	1781	1777	1508	1781	1777	1719
Q Serve(g_s), s	0.9	1.0	2.5	2.9	1.6	0.9	11.3	12.7	2.9	1.8	15.2	15.4
Cycle Q Clear(g_c), s	0.9	1.0	2.5	2.9	1.6	0.9	11.3	12.7	2.9	1.8	15.2	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	70	537	407	69	535	405	251	1479	628	42	549	531
V/C Ratio(X)	0.24	0.05	0.12	0.77	0.08	0.04	0.82	0.43	0.11	0.76	0.58	0.59
Avail Cap(c_a), veh/h	536	563	426	536	563	426	536	2138	908	536	1069	1035
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	25.7	26.2	47.5	26.0	25.7	41.6	20.7	17.8	48.4	29.1	29.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	6.7	0.0	0.0	9.3	0.2	0.1	10.1	2.7	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	0.8	1.4	0.7	0.3	5.5	5.2	1.0	0.9	6.8	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	25.7	26.3	54.2	26.0	25.7	50.9	21.0	17.9	58.5	31.8	32.0
LnGrp LOS	D	C	C	D	C	C	D	C	B	E	C	C
Approach Vol, veh/h	92			112			915			666		
Approach Delay, s/veh	30.0			39.3			27.5			33.2		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.8	50.2	8.2	33.5	18.5	39.5	8.3	33.4				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	13.8	14.7	4.9	4.5	13.3	17.4	2.9	3.6				
Green Ext Time (p_c), s	0.0	6.9	0.1	0.2	0.8	10.7	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 30.5

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	251	18	175	132	0	0	0	0	224	24	34
Future Volume (veh/h)	0	251	18	175	132	0	0	0	0	224	24	34
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	264	19	184	139	0				254	0	36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	267	532	233	363	694	0				918	0	640
Arrive On Green	0.00	0.15	0.15	0.20	0.20	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1781	3554	1559	1781	3572	0				3563	0	1562
Grp Volume(v), veh/h	0	264	19	184	139	0				254	0	36
Grp Sat Flow(s), veh/h/ln	1781	1777	1559	1781	1702	0				1781	0	1562
Q Serve(g_s), s	0.0	2.5	0.4	3.4	1.3	0.0				2.1	0.0	0.5
Cycle Q Clear(g_c), s	0.0	2.5	0.4	3.4	1.3	0.0				2.1	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	267	532	233	363	694	0				918	0	640
V/C Ratio(X)	0.00	0.50	0.08	0.51	0.20	0.00				0.28	0.00	0.06
Avail Cap(c_a), veh/h	2866	5718	2508	2866	5478	0				3344	0	1703
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.6	13.6	13.2	12.3	0.0				11.1	0.0	6.7
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.2	0.2	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 BackOfQ(50%), veh/ln	0.0	0.8	0.1	1.1	0.4	0.0				0.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.8	13.7	14.4	12.5	0.0				11.1	0.0	6.7
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	283			323			290					
Approach Delay, s/veh	14.8			13.6			10.6					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.6			15.8			11.9					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.5			4.1			5.4					
Green Ext Time (p_c), s	1.0			0.5			2.2					

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	410	0	1	288	262	34	12	170	22	0	221
Future Volume (veh/h)	97	410	0	1	288	262	34	12	170	22	0	221
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.99		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	105	446	0	1	313	285	37	13	185	24	0	240
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	1530	0	49	545	415	303	17	248	29	0	290
Arrive On Green	0.08	0.43	0.00	0.29	0.29	0.29	0.17	0.17	0.17	0.20	0.00	0.20
Sat Flow, veh/h	1781	3647	0	1	1869	1423	1781	103	1459	144	0	1444
Grp Volume(v), veh/h	105	446	0	314	0	285	37	0	198	264	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1870	0	1423	1781	0	1561	1588	0	0
Q Serve(g_s), s	4.3	6.1	0.0	0.0	0.0	13.2	1.3	0.0	9.0	11.9	0.0	0.0
Cycle Q Clear(g_c), s	4.3	6.1	0.0	10.7	0.0	13.2	1.3	0.0	9.0	11.9	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.93	0.09		0.91
Lane Grp Cap(c), veh/h	140	1530	0	594	0	415	303	0	265	319	0	0
V/C Ratio(X)	0.75	0.29	0.00	0.53	0.00	0.69	0.12	0.00	0.75	0.83	0.00	0.00
Avail Cap(c_a), veh/h	717	2859	0	1550	0	1144	955	0	837	852	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.6	13.8	0.0	22.5	0.0	23.4	26.2	0.0	29.4	28.6	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.0	0.9	0.0	2.4	0.1	0.0	1.6	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	2.1	0.0	4.3	0.0	4.2	0.5	0.0	3.4	4.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	13.9	0.0	23.4	0.0	25.8	26.3	0.0	31.0	30.7	0.0	0.0
LnGrp LOS	D	B	A	C	A	C	C	A	C	C	A	A
Approach Vol, veh/h	551				599		235				264	
Approach Delay, s/veh	19.4				24.5		30.3				30.7	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	36.5		19.0		10.4	26.2	19.1					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	8.1		13.9		6.3	15.2	11.0					
Green Ext Time (p_c), s	1.8		1.2		0.3	4.8	0.9					

Intersection Summary

HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	501	143	274	361	0	0	0	0	327	184	200
Future Volume (veh/h)	0	501	143	274	361	0	0	0	0	327	184	200
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	527	151	288	380	0				344	194	211
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1899	831	368	2464	0				677	355	292
Arrive On Green	0.00	0.53	0.53	0.21	1.00	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	3647	1555	3456	3647	0				3563	1870	1537
Grp Volume(v), veh/h	0	527	151	288	380	0				344	194	211
Grp Sat Flow(s),veh/h/ln	0	1777	1555	1728	1777	0				1781	1870	1537
Q Serve(g_s), s	0.0	6.8	4.2	6.6	0.0	0.0				7.3	7.9	10.8
Cycle Q Clear(g_c), s	0.0	6.8	4.2	6.6	0.0	0.0				7.3	7.9	10.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1899	831	368	2464	0				677	355	292
V/C Ratio(X)	0.00	0.28	0.18	0.78	0.15	0.00				0.51	0.55	0.72
Avail Cap(c_a), veh/h	0	1899	831	703	2464	0				1361	715	587
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.7	10.1	32.1	0.0	0.0				30.5	30.7	31.9
Incr Delay (d2), s/veh	0.0	0.4	0.5	1.3	0.1	0.0				0.2	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	1.3	2.4	0.0	0.0				3.1	3.5	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.0	10.6	33.5	0.1	0.0				30.7	31.2	33.2
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		678			668						749	
Approach Delay, s/veh		10.9			14.5						31.6	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.3	49.8		20.9		63.1						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.6	8.8		12.8		2.0						
Green Ext Time (p_c), s	0.3	3.4		1.7		2.7						

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	315	512	0	0	519	451	117	215	20	0	0	0
Future Volume (veh/h)	315	512	0	0	519	451	117	215	20	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	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			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	342	557	0	0	564	490	127	234	22			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1277	2709	0	0	1189	517	198	405	38			
Arrive On Green	0.74	1.00	0.00	0.00	0.33	0.33	0.12	0.12	0.12			
Sat Flow, veh/h	3456	3647	0	0	3647	1547	1636	3346	313			
Grp Volume(v), veh/h	342	557	0	0	564	490	139	117	127			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1547	1789	1702	1805			
Q Serve(g_s), s	2.7	0.0	0.0	0.0	10.5	25.9	6.2	5.5	5.6			
Cycle Q Clear(g_c), s	2.7	0.0	0.0	0.0	10.5	25.9	6.2	5.5	5.6			
Prop In Lane	1.00		0.00	0.00		1.00	0.91		0.17			
Lane Grp Cap(c), veh/h	1277	2709	0	0	1189	517	216	206	218			
V/C Ratio(X)	0.27	0.21	0.00	0.00	0.47	0.95	0.64	0.57	0.58			
Avail Cap(c_a), veh/h	1277	2709	0	0	1189	517	598	569	604			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.3	0.0	0.0	0.0	22.1	27.2	35.2	34.9	34.9			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.4	28.4	1.2	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			
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.0	0.0	4.2	12.6	2.7	2.3	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	0.2	0.0	0.0	23.5	55.6	36.4	35.8	35.8			
LnGrp LOS	A	A	A	A	C	E	D	D	D			
Approach Vol, veh/h	899			1054			383					
Approach Delay, s/veh	2.9			38.4			36.0					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.9			35.9			33.0			15.1		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+l1), s	2.0			4.7			27.9			8.2		
Green Ext Time (p_c), s	4.6			0.8			0.1			1.4		

Intersection Summary

HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←		←	←				
Traffic Volume (veh/h)	0	0	0	0	22	61	23	1170	14	0	0	0
Future Volume (veh/h)	0	0	0	0	22	61	23	1170	14	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	24	67	25	1286	15			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	88	118	3251	38			
Arrive On Green				0.00	0.07	0.07	0.65	0.65	0.65			
Sat Flow, veh/h				0	436	1216	35	5004	58			
Grp Volume(v), veh/h				0	0	91	485	402	439			
Grp Sat Flow(s),veh/h/ln				0	0	1651	1859	1549	1690			
Q Serve(g_s), s				0.0	0.0	2.2	0.0	4.9	4.9			
Cycle Q Clear(g_c), s				0.0	0.0	2.2	4.9	4.9	4.9			
Prop In Lane				0.00		0.74	0.05		0.03			
Lane Grp Cap(c), veh/h				0	0	119	1302	1006	1098			
V/C Ratio(X)				0.00	0.00	0.76	0.37	0.40	0.40			
Avail Cap(c_a), veh/h				0	0	1656	2876	2330	2542			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	18.2	3.3	3.3	3.3			
Incr Delay (d2), s/veh				0.0	0.0	3.8	0.3	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.9	0.7	0.6	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	22.0	3.6	3.7	3.7			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					91			1326				
Approach Delay, s/veh					22.0			3.6				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		31.5						8.4				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		6.9						4.2				
Green Ext Time (p_c), s		19.0						0.4				
Intersection Summary												
HCM 6th Ctrl Delay			4.8									
HCM 6th LOS			A									

9: Pacific Hwy & W Admiral Boland Wy/Sassafrass St

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	202	85	330	467	83	202	296	120	54	286	84
Future Volume (veh/h)	113	202	85	330	467	83	202	296	120	54	286	84
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		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	217	91	355	502	89	217	318	129	58	308	90
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	434	365	395	567	101	257	1032	388	75	723	198
Arrive On Green	0.09	0.23	0.23	0.22	0.37	0.37	0.14	0.29	0.29	0.04	0.18	0.18
Sat Flow, veh/h	1781	1870	1571	1781	1545	274	1781	3613	1358	1781	3939	1079
Grp Volume(v), veh/h	122	217	91	355	0	591	217	298	149	58	263	135
Grp Sat Flow(s),veh/h/ln	1781	1870	1571	1781	0	1819	1781	1702	1566	1781	1702	1614
Q Serve(g_s), s	5.8	8.8	4.1	16.9	0.0	26.5	10.3	6.0	6.5	2.8	6.0	6.5
Cycle Q Clear(g_c), s	5.8	8.8	4.1	16.9	0.0	26.5	10.3	6.0	6.5	2.8	6.0	6.5
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.87	1.00		0.67
Lane Grp Cap(c), veh/h	155	434	365	395	0	668	257	972	447	75	625	296
V/C Ratio(X)	0.79	0.50	0.25	0.90	0.00	0.89	0.85	0.31	0.33	0.77	0.42	0.45
Avail Cap(c_a), veh/h	614	860	722	614	0	836	614	2347	1080	614	2347	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	38.9	29.0	27.2	32.9	0.0	25.8	36.3	24.3	24.5	41.3	31.4	31.6
Incr Delay (d2), s/veh	3.3	0.3	0.1	7.7	0.0	9.5	3.0	0.3	0.8	6.2	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 BackOfQ(50%),veh/ln	2.7	3.9	1.5	8.0	0.0	12.8	4.6	2.4	2.4	1.3	2.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	29.3	27.4	40.6	0.0	35.3	39.3	24.7	25.4	47.5	32.2	33.6
LnGrp LOS	D	C	C	D	A	D	D	C	C	D	C	C
Approach Vol, veh/h	430		946			664			456			
Approach Delay, s/veh	32.6		37.3			29.6			34.6			
Approach LOS	C		D			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.1	23.7	25.1	16.9	21.3	12.0	36.8					
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.8	8.5	18.9	10.8	12.3	8.5	7.8	28.5				
Green Ext Time (p_c), s	0.1	5.8	0.5	1.0	0.3	4.9	0.2	3.2				

Intersection Summary

HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2030 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	140	285	110	232	0	0	0	0	78	1450	568
Future Volume (veh/h)	0	140	285	110	232	0	0	0	0	78	1450	568
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	143	291	112	237	0				80	1480	580
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	423	358	193	445	0				1116	2266	867
Arrive On Green	0.00	0.23	0.23	0.23	0.23	0.00				0.63	0.63	0.63
Sat Flow, veh/h	0	1870	1585	551	2052	0				1781	3617	1384
Grp Volume(v), veh/h	0	143	291	165	184	0				80	1391	669
Grp Sat Flow(s),veh/h/ln	0	1870	1585	901	1617	0				1781	1702	1597
Q Serve(g_s), s	0.0	5.7	15.4	10.8	8.8	0.0				1.6	22.8	23.8
Cycle Q Clear(g_c), s	0.0	5.7	15.4	16.4	8.8	0.0				1.6	22.8	23.8
Prop In Lane	0.00		1.00	0.68		0.00				1.00		0.87
Lane Grp Cap(c), veh/h	0	423	358	272	366	0				1116	2133	1001
V/C Ratio(X)	0.00	0.34	0.81	0.61	0.50	0.00				0.07	0.65	0.67
Avail Cap(c_a), veh/h	0	636	539	401	549	0				1211	2313	1085
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.6	32.4	34.2	29.8	0.0				6.4	10.4	10.6
Incr Delay (d2), s/veh	0.0	0.2	3.2	1.6	0.8	0.0				0.0	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
%ile BackOfQ(50%),veh/ln	0.0	2.5	6.1	3.5	3.5	0.0				0.5	7.6	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.8	35.6	35.9	30.6	0.0				6.5	11.2	12.5
LnGrp LOS	A	C	D	D	C	A				A	B	B
Approach Vol, veh/h		434			349						2140	
Approach Delay, s/veh		33.4			33.1						11.4	
Approach LOS		C			C						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				26.7		61.6		26.7				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				17.4		25.8		18.4				
Green Ext Time (p_c), s				0.9		29.6		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			17.3									
HCM 6th LOS			B									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖		↖	↑↑				
Traffic Volume (veh/h)	122	17	78	0	26	16	321	1196	34	0	0	0
Future Volume (veh/h)	122	17	78	0	26	16	321	1196	34	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	142	20	91	0	30	19	373	1391	40			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	362	41	1185	0	205	130	992	1963	56			
Arrive On Green	0.19	0.19	0.19	0.00	0.19	0.19	0.56	0.56	0.56			
Sat Flow, veh/h	1077	214	1573	0	1068	677	1781	3524	101			
Grp Volume(v), veh/h	162	0	91	0	0	49	373	700	731			
Grp Sat Flow(s),veh/h/ln	1291	0	1573	0	0	1745	1781	1777	1849			
Q Serve(g_s), s	4.3	0.0	0.0	0.0	0.0	1.0	5.1	12.5	12.6			
Cycle Q Clear(g_c), s	5.3	0.0	0.0	0.0	0.0	1.0	5.1	12.5	12.6			
Prop In Lane	0.88		1.00	0.00		0.39	1.00		0.05			
Lane Grp Cap(c), veh/h	404	0	1185	0	0	335	992	990	1030			
V/C Ratio(X)	0.40	0.00	0.08	0.00	0.00	0.15	0.38	0.71	0.71			
Avail Cap(c_a), veh/h	1100	0	1969	0	0	1205	1209	1206	1255			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	16.6	0.0	1.5	0.0	0.0	14.6	5.4	7.0	7.0			
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.1	0.2	1.5	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.1	0.0	0.0	0.4	1.2	3.3	3.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	1.5	0.0	0.0	14.7	5.6	8.5	8.5			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h	253					49		1804				
Approach Delay, s/veh	11.6					14.7		7.9				
Approach LOS	B					B		A				
Timer - Assigned Phs	2		4					8				
Phs Duration (G+Y+Rc), s	28.7		14.7					14.7				
Change Period (Y+Rc), s	4.5		* 6.4					6.4				
Max Green Setting (Gmax), s	29.5		* 30					30.0				
Max Q Clear Time (g_c+I1), s	14.6		7.3					3.0				
Green Ext Time (p_c), s	9.6		1.2					0.1				
Intersection Summary												
HCM 6th Ctrl Delay			8.5									
HCM 6th LOS			A									
Notes												

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

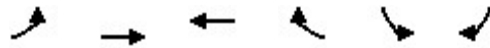
SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	37	45	162	11	60	33	525	102	44	689	17
Future Volume (veh/h)	24	37	45	162	11	60	33	525	102	44	689	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	39	47	171	12	63	35	553	107	46	725	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	206	249	442	69	364	55	2031	617	130	2072	51
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.40	0.40	0.04	0.40	0.40
Sat Flow, veh/h	1317	769	927	1304	258	1357	1781	5106	1552	3456	5120	127
Grp Volume(v), veh/h	25	0	86	171	0	75	35	553	107	46	481	262
Grp Sat Flow(s),veh/h/ln	1317	0	1696	1304	0	1615	1781	1702	1552	1728	1702	1842
Q Serve(g_s), s	0.7	0.0	2.0	5.8	0.0	1.8	1.0	3.7	2.2	0.7	4.9	5.0
Cycle Q Clear(g_c), s	2.5	0.0	2.0	7.8	0.0	1.8	1.0	3.7	2.2	0.7	4.9	5.0
Prop In Lane	1.00		0.55	1.00		0.84	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	449	0	455	442	0	433	55	2031	617	130	1378	746
V/C Ratio(X)	0.06	0.00	0.19	0.39	0.00	0.17	0.64	0.27	0.17	0.35	0.35	0.35
Avail Cap(c_a), veh/h	1144	0	1349	1130	0	1285	1063	6094	1852	2062	4062	2199
HCM Platoon Ratio	1.00	1.00	1.00	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	15.1	0.0	14.2	17.2	0.0	14.1	24.1	10.2	9.8	23.6	10.4	10.4
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	0.1	4.5	0.1	0.2	0.6	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.7	1.6	0.0	0.6	0.4	1.1	0.6	0.3	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	0.0	14.3	17.4	0.0	14.2	28.6	10.4	10.0	24.2	10.5	10.7
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	111					246		695		789		
Approach Delay, s/veh	14.5					16.4		11.2		11.4		
Approach LOS	B					B		B		B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.3		25.7		18.3	5.9	26.0		18.3			
Change Period (Y+Rc), s	4.4		* 5.7		* 4.8	4.4	5.7		* 4.8			
Max Green Setting (Gmax), s	30.0		* 60		* 40	30.0	60.0		* 40			
Max Q Clear Time (g_c+I2, s)	12.7		5.7		4.5	3.0	7.0		9.8			
Green Ext Time (p_c), s	0.1		8.4		0.4	0.0	5.4		0.6			
Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									
Notes												

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	3033	13	0	2113	0	1
Future Vol, veh/h	3033	13	0	2113	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	3127	13	0	2178	0	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	1570
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	85
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	85
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		47.9		
HCM LOS	E					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	85	-	-	-		
HCM Lane V/C Ratio	0.012	-	-	-		
HCM Control Delay (s)	47.9	-	-	-		
HCM Lane LOS	E	-	-	-		
HCM 95th %tile Q(veh)	0	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1180	1962	2197	61	48	60
Future Volume (veh/h)	1180	1962	2197	61	48	60
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1242	2065	2313	0	51	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	896	4263	2784		100	89
Arrive On Green	0.26	0.86	0.56	0.00	0.06	0.06
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1242	2065	2313	0	51	63
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	30.6	12.1	45.1	0.0	3.3	4.6
Cycle Q Clear(g_c), s	30.6	12.1	45.1	0.0	3.3	4.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	896	4263	2784		100	89
V/C Ratio(X)	1.39	0.48	0.83		0.51	0.71
Avail Cap(c_a), veh/h	896	4263	2784		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.44	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	2.1	21.5	0.0	54.1	54.8
Incr Delay (d2), s/veh	180.6	0.4	1.4	0.0	1.5	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	35.0	1.6	16.1	0.0	1.5	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	224.3	2.5	22.8	0.0	55.7	58.7
LnGrp LOS	F	A	C		E	E
Approach Vol, veh/h		3307	2313	A	114	
Approach Delay, s/veh		85.8	22.8		57.3	
Approach LOS		F	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.2		11.8	35.0	71.2
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	30.6	* 43
Max Q Clear Time (g_c+l1), s		14.1		6.6	32.6	47.1
Green Ext Time (p_c), s		57.5		0.1	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	59.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	996	81	53	1152	78	93	268	74	76	147	538
Future Volume (veh/h)	284	996	81	53	1152	78	93	268	74	76	147	538
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.94	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	290	1016	83	54	1176	80	95	273	76	78	150	549
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	1558	127	244	1464	99	117	770	200	98	934	542
Arrive On Green	0.18	0.47	0.47	0.05	0.14	0.14	0.07	0.19	0.19	0.06	0.18	0.18
Sat Flow, veh/h	1781	3325	272	1781	3372	229	1781	3981	1032	1781	5106	1430
Grp Volume(v), veh/h	290	543	556	54	619	637	95	230	119	78	150	549
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1825	1781	1702	1609	1781	1702	1430
Q Serve(g_s), s	22.4	32.7	32.7	4.1	47.2	47.3	7.4	8.2	9.0	6.1	3.5	25.6
Cycle Q Clear(g_c), s	22.4	32.7	32.7	4.1	47.2	47.3	7.4	8.2	9.0	6.1	3.5	25.6
Prop In Lane	1.00		0.15	1.00		0.13	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	316	833	853	244	771	792	117	658	311	98	934	542
V/C Ratio(X)	0.92	0.65	0.65	0.22	0.80	0.80	0.81	0.35	0.38	0.79	0.16	1.01
Avail Cap(c_a), veh/h	382	833	853	244	771	792	244	658	311	244	934	542
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.80	0.80	0.99	0.99	0.99	0.94	0.94	0.94
Uniform Delay (d), s/veh	56.6	28.5	28.5	59.6	54.2	54.2	64.5	48.8	49.2	65.4	48.2	45.4
Incr Delay (d2), s/veh	24.1	3.9	3.9	1.7	7.0	6.9	5.0	0.4	0.9	5.1	0.1	40.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	14.4	14.8	2.0	24.1	24.7	3.5	3.5	3.7	2.9	1.5	24.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.7	32.4	32.3	61.3	61.2	61.1	69.5	49.2	50.0	70.4	48.3	86.0
LnGrp LOS	F	C	C	E	E	E	E	D	D	E	D	F
Approach Vol, veh/h	1389			1310			444			777		
Approach Delay, s/veh	42.5			61.2			53.8			77.1		
Approach LOS	D			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.1	32.1	25.0	70.8	13.6	30.6	29.2	66.6				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+I), s	11.0	11.0	6.1	34.7	9.4	27.6	24.4	49.3				
Green Ext Time (p_c), s	0.1	2.0	0.0	11.3	0.1	0.0	0.4	0.0				

Intersection Summary

HCM 6th Ctrl Delay	56.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	967	100	38	165	0	0	0	0	136	170	1122
Future Volume (veh/h)	0	967	100	38	165	0	0	0	0	136	170	1122
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1051	109	41	179	0				148	185	1220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1624	168	66	2021	0				281	1645	537
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3342	337	1781	3647	0				813	4757	1553
Grp Volume(v), veh/h	0	575	585	41	179	0				333	0	1220
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1830	1870	1553
Q Serve(g_s), s	0.0	42.3	42.4	3.2	3.2	0.0				20.4	0.0	48.4
Cycle Q Clear(g_c), s	0.0	42.3	42.4	3.2	3.2	0.0				20.4	0.0	48.4
Prop In Lane	0.00		0.19	1.00		0.00				0.44		1.00
Lane Grp Cap(c), veh/h	0	888	904	66	2021	0				633	1293	537
V/C Ratio(X)	0.00	0.65	0.65	0.62	0.09	0.00				0.53	0.00	2.27
Avail Cap(c_a), veh/h	0	888	904	313	2021	0				633	1293	537
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.86	0.86	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	46.9	46.9	66.4	13.7	0.0				36.6	0.0	45.8
Incr Delay (d2), s/veh	0.0	3.0	3.0	3.0	0.1	0.0				3.1	0.0	578.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.9	21.3	1.5	1.3	0.0				9.8	0.0	105.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.9	49.9	69.4	13.8	0.0				39.8	0.0	624.1
LnGrp LOS	A	D	D	E	B	A				D	A	F
Approach Vol, veh/h		1160			220						1553	
Approach Delay, s/veh		49.9			24.2						498.8	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.6	76.6		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.2	44.4		50.4		5.2						
Green Ext Time (p_c), s	0.0	1.6		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	285.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2030 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	866	276	0	0	140	153	41	102	58	0	0	0
Future Volume (veh/h)	866	276	0	0	140	153	41	102	58	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	931	297	0	0	151	165	44	110	62			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1537	1496	0	0	523	460	75	203	118			
Arrive On Green	0.44	0.80	0.00	0.00	0.29	0.29	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	1870	1566	975	2623	1518			
Grp Volume(v), veh/h	931	297	0	0	151	165	82	72	62			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1566	1822	1777	1518			
Q Serve(g_s), s	16.4	3.0	0.0	0.0	5.2	6.7	3.5	3.1	3.1			
Cycle Q Clear(g_c), s	16.4	3.0	0.0	0.0	5.2	6.7	3.5	3.1	3.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.54		1.00			
Lane Grp Cap(c), veh/h	1537	1496	0	0	523	460	141	138	118			
V/C Ratio(X)	0.61	0.20	0.00	0.00	0.29	0.36	0.58	0.52	0.53			
Avail Cap(c_a), veh/h	1537	1496	0	0	580	511	389	380	325			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	1.00	1.00	0.97	0.97	0.97			
Uniform Delay (d), s/veh	16.9	1.9	0.0	0.0	21.8	22.3	35.7	35.5	35.5			
Incr Delay (d2), s/veh	0.5	0.2	0.0	0.0	0.1	0.2	1.4	1.1	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.8	0.5	0.0	0.0	2.1	2.3	1.6	1.4	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	2.1	0.0	0.0	21.9	22.5	37.0	36.6	36.8			
LnGrp LOS	B	A	A	A	C	C	D	D	D			
Approach Vol, veh/h	1228			316			216					
Approach Delay, s/veh	13.7			22.2			36.8					
Approach LOS	B			C			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.9			40.5			28.4			11.1		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	5.0			18.4			8.7			5.5		
Green Ext Time (p_c), s	1.0			1.4			1.0			0.5		

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	179	1691	553	0	0	1981
Future Volume (veh/h)	179	1691	553	0	0	1981
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	183	0	564	0	0	2021
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	215		3181	0	200	4965
Arrive On Green	0.12	0.00	0.64	0.00	0.00	0.79
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	183	0	564	0	0	2021
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.1	0.0	5.1	0.0	0.0	10.9
Cycle Q Clear(g_c), s	11.1	0.0	5.1	0.0	0.0	10.9
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	215		3181	0	200	4965
V/C Ratio(X)	0.85		0.18	0.00	0.00	0.41
Avail Cap(c_a), veh/h	486		3181	0	742	4965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.00	0.95	0.00	0.00	0.86
Uniform Delay (d), s/veh	47.4	0.0	8.1	0.0	0.0	3.6
Incr Delay (d2), s/veh	2.5	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	1.6	0.0	0.0	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.9	0.0	8.2	0.0	0.0	3.8
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	183	A	564			2021
Approach Delay, s/veh	49.9		8.2			3.8
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.8	75.1			91.9	18.1
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.8	20.0			70.2	30.0
Max Q Clear Time (g_c+I10), s	10.6	7.1			12.9	13.1
Green Ext Time (p_c), s	0.0	3.9			33.3	0.2

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2030 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	198	1724	140	134	286	0	0	206	48
Future Volume (veh/h)	0	0	0	198	1724	140	134	286	0	0	206	48
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				204	1777	144	138	295	0	0	212	49
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				256	2377	197	167	1447	0	0	545	116
Arrive On Green				0.17	0.17	0.17	0.19	0.57	0.00	0.00	0.13	0.13
Sat Flow, veh/h				483	4486	373	1781	5274	0	0	4300	881
Grp Volume(v), veh/h				780	652	693	138	295	0	0	172	89
Grp Sat Flow(s),veh/h/ln				1846	1702	1793	1781	1702	0	0	1702	1609
Q Serve(g_s), s				44.5	39.8	40.2	8.2	3.1	0.0	0.0	5.1	5.6
Cycle Q Clear(g_c), s				44.5	39.8	40.2	8.2	3.1	0.0	0.0	5.1	5.6
Prop In Lane				0.26		0.21	1.00		0.00	0.00		0.55
Lane Grp Cap(c), veh/h				978	902	950	167	1447	0	0	449	212
V/C Ratio(X)				0.80	0.72	0.73	0.83	0.20	0.00	0.00	0.38	0.42
Avail Cap(c_a), veh/h				978	902	950	272	1852	0	0	532	252
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.70	0.70	0.70	0.68	0.68	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				39.7	37.8	37.9	43.9	17.7	0.0	0.0	43.7	43.9
Incr Delay (d2), s/veh				4.8	3.5	3.5	3.2	0.1	0.0	0.0	0.3	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.3	19.0	20.2	3.4	1.2	0.0	0.0	2.1	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.5	41.3	41.4	47.1	17.8	0.0	0.0	44.0	44.8
LnGrp LOS				D	D	D	D	B	A	A	D	D
Approach Vol, veh/h					2125			433			261	
Approach Delay, s/veh					42.5			27.1			44.3	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.2	20.9		64.2	37.1				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				16.8	* 17		58.3	39.9				
Max Q Clear Time (g_c+I1), s				10.2	7.6		46.5	5.1				
Green Ext Time (p_c), s				0.1	0.8		8.6	2.3				
Intersection Summary												
HCM 6th Ctrl Delay											40.3	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	201	2030	0	0	0	0	0	167	68
Future Volume (veh/h)	0	0	0	201	2030	0	0	0	0	0	167	68
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				209	2115	0				0	174	71
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				318	3445	0				0	696	251
Arrive On Green				0.24	0.24	0.00				0.00	0.19	0.19
Sat Flow, veh/h				444	4977	0				0	3798	1308
Grp Volume(v), veh/h				871	1453	0				0	162	83
Grp Sat Flow(s),veh/h/ln				1848	1702	0				0	1702	1534
Q Serve(g_s), s				46.9	41.7	0.0				0.0	4.4	5.1
Cycle Q Clear(g_c), s				46.9	41.7	0.0				0.0	4.4	5.1
Prop In Lane				0.24		0.00				0.00		0.85
Lane Grp Cap(c), veh/h				1324	2439	0				0	653	294
V/C Ratio(X)				0.66	0.60	0.00				0.00	0.25	0.28
Avail Cap(c_a), veh/h				1324	2439	0				0	653	294
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				29.8	27.8	0.0				0.0	37.7	38.0
Incr Delay (d2), s/veh				2.6	1.1	0.0				0.0	0.9	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				24.0	19.3	0.0				0.0	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.4	28.9	0.0				0.0	38.6	40.4
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2324						245	
Approach Delay, s/veh					30.2						39.2	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.0		84.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.1		78.8						
Max Q Clear Time (g_c+I1), s				7.1		48.9						
Green Ext Time (p_c), s				0.3		4.2						
Intersection Summary												
HCM 6th Ctrl Delay											31.1	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2169	131	86	98	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2169	131	86	98	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2236	135	89	101	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3511	210	302	382	0			
Arrive On Green				0.00	0.24	0.24	0.19	0.19	0.00			
Sat Flow, veh/h				0	5088	294	1576	2086	0			
Grp Volume(v), veh/h				0	1541	830	101	89	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1810	1792	1777	0			
Q Serve(g_s), s				0.0	44.8	45.4	5.3	4.7	0.0			
Cycle Q Clear(g_c), s				0.0	44.8	45.4	5.3	4.7	0.0			
Prop In Lane				0.00		0.16	0.88		0.00			
Lane Grp Cap(c), veh/h				0	2429	1292	344	341	0			
V/C Ratio(X)				0.00	0.63	0.64	0.29	0.26	0.00			
Avail Cap(c_a), veh/h				0	2429	1292	344	341	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	29.2	29.4	38.1	37.8	0.0			
Incr Delay (d2), s/veh				0.0	1.3	2.5	2.2	1.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	20.7	22.8	2.6	2.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	30.4	31.9	40.2	39.7	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2371			190				
Approach Delay, s/veh					30.9			40.0				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						84.0		26.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						78.5		21.1				
Max Q Clear Time (g_c+I1), s						47.4		7.3				
Green Ext Time (p_c), s						23.6		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				31.6								
HCM 6th LOS				C								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	225	2350	0	0	0	0	0	145	40
Future Volume (veh/h)	0	0	0	225	2350	0	0	0	0	0	145	40
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				237	2474	0				0	153	42
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				301	3380	0				0	733	316
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				430	4991	0				0	3647	1533
Grp Volume(v), veh/h				1019	1692	0				0	153	42
Grp Sat Flow(s),veh/h/ln				1849	1702	0				0	1777	1533
Q Serve(g_s), s				56.9	50.3	0.0				0.0	3.9	2.5
Cycle Q Clear(g_c), s				56.9	50.3	0.0				0.0	3.9	2.5
Prop In Lane				0.23		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1296	2386	0				0	733	316
V/C Ratio(X)				0.79	0.71	0.00				0.00	0.21	0.13
Avail Cap(c_a), veh/h				1296	2386	0				0	733	316
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				34.5	32.0	0.0				0.0	36.2	35.6
Incr Delay (d2), s/veh				4.9	1.8	0.0				0.0	0.6	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				29.8	23.4	0.0				0.0	1.8	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.4	33.8	0.0				0.0	36.8	36.5
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2711						195	
Approach Delay, s/veh					35.9						36.8	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				5.9		58.9						
Green Ext Time (p_c), s				0.9		16.4						
Intersection Summary												
HCM 6th Ctrl Delay				36.0								
HCM 6th LOS				D								

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2440	45	121	62	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2440	45	121	62	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2542	47	126	65	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3682	68	342	341	0			
Arrive On Green				0.00	0.71	0.71	0.19	0.19	0.00			
Sat Flow, veh/h				0	5328	95	1781	1870	0			
Grp Volume(v), veh/h				0	1673	916	126	65	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1851	1781	1777	0			
Q Serve(g_s), s				0.0	30.5	30.8	6.8	3.4	0.0			
Cycle Q Clear(g_c), s				0.0	30.5	30.8	6.8	3.4	0.0			
Prop In Lane				0.00		0.05	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2429	1321	342	341	0			
V/C Ratio(X)				0.00	0.69	0.69	0.37	0.19	0.00			
Avail Cap(c_a), veh/h				0	2429	1321	342	341	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	8.9	8.9	38.7	37.3	0.0			
Incr Delay (d2), s/veh				0.0	1.6	3.0	3.0	1.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	10.2	11.7	3.3	1.6	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	10.5	11.9	41.7	38.5	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2589			191				
Approach Delay, s/veh					11.0			40.6				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						84.0		26.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						78.5		21.1				
Max Q Clear Time (g_c+I1), s						32.8		8.8				
Green Ext Time (p_c), s						34.6		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	125	553	2	91	0	0	0	11
Future Vol, veh/h	0	0	0	0	125	553	2	91	0	0	0	11
Conflicting Peds, #/hr	6	0	0	0	0	6	15	0	0	0	0	15
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	130	576	2	95	0	0	0	11
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	80	712	-	-	-	374
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	80	712	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	899	356	0	0	0	623
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	919	434	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	882	354	-	-	-	619
Mov Cap-2 Maneuver				-	-	-	882	354	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	902	431	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		18.8		10.9				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	354	-	-	619								
HCM Lane V/C Ratio	0.268	-	-	0.019								
HCM Control Delay (s)	18.8	-	-	10.9								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	534	127	1371	805	0
Future Volume (veh/h)	0	0	0	0	0	0	0	534	127	1371	805	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	562	134	1443	847	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1713	527	2859	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.34	0.34	0.38	0.64	0.00
Sat Flow, veh/h		0					0	5149	1534	5023	1826	0
Grp Volume(v), veh/h		0.0					0	562	134	1443	847	0
Grp Sat Flow(s),veh/h/ln							0	1662	1534	1674	1826	0
Q Serve(g_s), s							0.0	9.2	6.9	24.2	26.8	0.0
Cycle Q Clear(g_c), s							0.0	9.2	6.9	24.2	26.8	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1713	527	2859	1740	0
V/C Ratio(X)							0.00	0.33	0.25	0.50	0.49	0.00
Avail Cap(c_a), veh/h							0	1717	529	2859	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.89	0.89	0.00
Uniform Delay (d), s/veh							0.0	26.7	26.0	22.1	5.8	0.0
Incr Delay (d2), s/veh							0.0	0.3	0.7	0.1	0.9	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	3.5	2.5	9.9	5.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	27.0	26.6	22.3	6.7	0.0
LnGrp LOS							A	C	C	C	A	A
Approach Vol, veh/h								696			2290	
Approach Delay, s/veh								26.9			16.5	
Approach LOS								C			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	67.0	43.0					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	26.8	* 38					68.8					
Max Q Clear Time (g_c+I1), s	26.2	11.2					28.8					
Green Ext Time (p_c), s	0.4	8.8					9.4					
Intersection Summary												
HCM 6th Ctrl Delay			18.9									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	64	1413	81	0	0	0	0	331	211	97	299	0
Future Volume (veh/h)	64	1413	81	0	0	0	0	331	211	97	299	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	66	1457	84				0	341	218	100	308	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	131	3085	942				0	621	276	130	1508	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.15	0.59	0.00
Sat Flow, veh/h	215	5049	1542				0	3572	1513	1781	5274	0
Grp Volume(v), veh/h	571	952	84				0	341	218	100	308	0
Grp Sat Flow(s),veh/h/ln	1860	1702	1542				0	1702	1513	1781	1702	0
Q Serve(g_s), s	30.0	27.0	4.9				0.0	10.0	15.1	5.9	3.1	0.0
Cycle Q Clear(g_c), s	30.0	27.0	4.9				0.0	10.0	15.1	5.9	3.1	0.0
Prop In Lane	0.12		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1136	2080	942				0	621	276	130	1508	0
V/C Ratio(X)	0.50	0.46	0.09				0.00	0.55	0.79	0.77	0.20	0.00
Avail Cap(c_a), veh/h	1136	2080	942				0	870	387	334	2442	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	29.1	27.9	19.0				0.0	40.9	43.0	46.1	16.5	0.0
Incr Delay (d2), s/veh	0.1	0.1	0.0				0.0	0.9	7.7	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	5.0	12.3	1.7				0.0	4.2	6.2	2.6	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	27.9	19.0				0.0	41.7	50.7	49.3	16.5	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1607						559			408		
Approach Delay, s/veh	27.9						45.2			24.6		
Approach LOS	C						D			C		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	72.1			37.9			12.4		25.5			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	47.1			52.6			20.6		* 28			
Max Q Clear Time (g_c+l1), s	32.0			5.1			7.9		17.1			
Green Ext Time (p_c), s	11.5			1.7			0.1		2.9			

Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙↑↑		
Traffic Volume (veh/h)	0	1722	50	0	0	0	0	0	0	148	238	0
Future Volume (veh/h)	0	1722	50	0	0	0	0	0	0	148	238	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1775	52							153	245	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3153	92							520	993	0
Arrive On Green	0.00	0.20	0.20							0.10	0.10	0.00
Sat Flow, veh/h	0	5261	149							1781	3572	0
Grp Volume(v), veh/h	0	1186	641							153	245	0
Grp Sat Flow(s),veh/h/ln	0	1702	1838							1781	1702	0
Q Serve(g_s), s	0.0	34.5	34.5							8.8	7.3	0.0
Cycle Q Clear(g_c), s	0.0	34.5	34.5							8.8	7.3	0.0
Prop In Lane	0.00		0.08							1.00		0.00
Lane Grp Cap(c), veh/h	0	2107	1138							520	993	0
V/C Ratio(X)	0.00	0.56	0.56							0.29	0.25	0.00
Avail Cap(c_a), veh/h	0	2107	1138							520	993	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.4	30.4							39.2	38.5	0.0
Incr Delay (d2), s/veh	0.0	1.1	2.0							1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.0	17.6							4.4	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.5	32.4							40.6	39.1	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1827									398	
Approach Delay, s/veh		31.8									39.7	
Approach LOS		C									D	
Timer - Assigned Phs		2			4							
Phs Duration (G+Y+Rc), s		73.0			37.0							
Change Period (Y+Rc), s		4.9			4.9							
Max Green Setting (Gmax), s		68.1			32.1							
Max Q Clear Time (g_c+l1), s		36.5			10.8							
Green Ext Time (p_c), s		6.1			1.0							
Intersection Summary												
HCM 6th Ctrl Delay			33.2									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	70	2105	0	0	0	0	0	105	223	0	0	0
Future Volume (veh/h)	70	2105	0	0	0	0	0	105	223	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.91			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	72	2170	0				0	108	230			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	100	3208	0				0	502	409			
Arrive On Green	0.21	0.21	0.00				0.00	0.28	0.28			
Sat Flow, veh/h	159	5276	0				0	1870	1446			
Grp Volume(v), veh/h	842	1400	0				0	108	230			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1446			
Q Serve(g_s), s	46.4	41.5	0.0				0.0	5.1	14.9			
Cycle Q Clear(g_c), s	46.4	41.5	0.0				0.0	5.1	14.9			
Prop In Lane	0.09		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1170	2138	0				0	502	409			
V/C Ratio(X)	0.72	0.65	0.00				0.00	0.21	0.56			
Avail Cap(c_a), veh/h	1170	2138	0				0	502	409			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	34.6	32.7	0.0				0.0	30.1	33.6			
Incr Delay (d2), s/veh	3.8	1.6	0.0				0.0	1.0	5.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	24.3	19.3	0.0				0.0	2.3	5.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	34.2	0.0				0.0	31.1	39.2			
LnGrp LOS	D	C	A				A	C	D			
Approach Vol, veh/h		2242						338				
Approach Delay, s/veh		35.8						36.6				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		74.0						36.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		69.1						31.1				
Max Q Clear Time (g_c+l1), s		48.4						16.9				
Green Ext Time (p_c), s		16.3						1.9				
Intersection Summary												
HCM 6th Ctrl Delay			35.9									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	2470	87	0	0	0	0	0	0	146	236	0
Future Volume (veh/h)	0	2470	87	0	0	0	0	0	0	146	236	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2520	89							149	241	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3456	121							406	811	0
Arrive On Green	0.00	0.23	0.23							0.08	0.08	0.00
Sat Flow, veh/h	0	5230	177							1781	3647	0
Grp Volume(v), veh/h	0	1688	921							149	241	0
Grp Sat Flow(s),veh/h/ln	0	1702	1835							1781	1777	0
Q Serve(g_s), s	0.0	50.5	51.3							8.7	7.1	0.0
Cycle Q Clear(g_c), s	0.0	50.5	51.3							8.7	7.1	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2324	1253							406	811	0
V/C Ratio(X)	0.00	0.73	0.74							0.37	0.30	0.00
Avail Cap(c_a), veh/h	0	2324	1253							406	811	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.1	33.4							43.3	42.5	0.0
Incr Delay (d2), s/veh	0.0	2.0	3.9							2.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	23.6	26.4							4.4	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.1	37.2							45.8	43.5	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2609									390	
Approach Delay, s/veh		35.9									44.4	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		80.0	30.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		75.1	25.1									
Max Q Clear Time (g_c+l1), s		53.3	10.7									
Green Ext Time (p_c), s		18.9	1.7									
Intersection Summary												
HCM 6th Ctrl Delay			37.0									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	126	2310	0	0	0	0	0	75	29	0	0	0
Future Volume (veh/h)	126	2310	0	0	0	0	0	75	29	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	133	2432	0				0	79	31			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	182	3554	0				0	509	190			
Arrive On Green	0.23	0.23	0.00				0.00	0.20	0.20			
Sat Flow, veh/h	256	5174	0				0	2627	944			
Grp Volume(v), veh/h	964	1601	0				0	54	56			
Grp Sat Flow(s),veh/h/ln	1858	1702	0				0	1777	1700			
Q Serve(g_s), s	52.7	46.9	0.0				0.0	2.8	3.0			
Cycle Q Clear(g_c), s	52.7	46.9	0.0				0.0	2.8	3.0			
Prop In Lane	0.14		0.00				0.00		0.56			
Lane Grp Cap(c), veh/h	1319	2417	0				0	357	342			
V/C Ratio(X)	0.73	0.66	0.00				0.00	0.15	0.16			
Avail Cap(c_a), veh/h	1319	2417	0				0	357	342			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	32.4	30.2	0.0				0.0	36.2	36.3			
Incr Delay (d2), s/veh	3.6	1.4	0.0				0.0	0.9	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	27.5	21.8	0.0				0.0	1.3	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	31.6	0.0				0.0	37.1	37.3			
LnGrp LOS	D	C	A				A	D	D			
Approach Vol, veh/h	2565					110						
Approach Delay, s/veh	33.3					37.2						
Approach LOS	C					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	83.0					27.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	78.1					22.1						
Max Q Clear Time (g_c+l1), s	54.7					5.0						
Green Ext Time (p_c), s	19.9					0.5						
Intersection Summary												
HCM 6th Ctrl Delay			33.4									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	32	934	885	107	103	189
Future Volume (veh/h)	32	934	885	107	103	189
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	34	1004	952	115	111	203
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	43	3800	3151	379	508	233
Arrive On Green	0.02	0.76	1.00	1.00	0.15	0.15
Sat Flow, veh/h	1781	5149	4661	541	3456	1585
Grp Volume(v), veh/h	34	1004	703	364	111	203
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1715	1728	1585
Q Serve(g_s), s	2.2	7.1	0.0	0.0	3.3	14.8
Cycle Q Clear(g_c), s	2.2	7.1	0.0	0.0	3.3	14.8
Prop In Lane	1.00			0.32	1.00	1.00
Lane Grp Cap(c), veh/h	43	3800	2329	1202	508	233
V/C Ratio(X)	0.79	0.26	0.30	0.30	0.22	0.87
Avail Cap(c_a), veh/h	160	3800	2329	1202	1204	552
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	57.3	4.2	0.0	0.0	44.4	49.2
Incr Delay (d2), s/veh	10.5	0.2	0.3	0.6	0.1	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	1.8	0.1	0.2	1.5	12.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.8	4.3	0.3	0.6	44.4	53.2
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1038	1067		314	
Approach Delay, s/veh		6.4	0.4		50.1	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		95.8		22.2	7.3	88.5
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 66		41.1	10.6	51.2
Max Q Clear Time (g_c+I1), s		9.1		16.8	4.2	2.0
Green Ext Time (p_c), s		22.8		0.6	0.0	21.1
Intersection Summary						
HCM 6th Ctrl Delay			9.4			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	117	1005	30	24	1016	17	21	0	12	8	0	11
Future Volume (veh/h)	117	1005	30	24	1016	17	21	0	12	8	0	11
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		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	1036	31	25	1047	0	17	7	12	8	0	11
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	685	3457	103	60	1660		42	13	23	271	0	118
Arrive On Green	0.77	1.00	1.00	0.03	0.33	0.00	0.02	0.02	0.02	0.08	0.00	0.08
Sat Flow, veh/h	1781	4969	149	1781	4985	1585	1781	569	976	3456	0	1506
Grp Volume(v), veh/h	121	693	374	25	1047	0	17	0	19	8	0	11
Grp Sat Flow(s), veh/h/ln	1781	1662	1795	1781	1662	1585	1781	0	1545	1728	0	1506
Q Serve(g_s), s	2.1	0.0	0.0	1.6	20.9	0.0	1.1	0.0	1.4	0.3	0.0	0.8
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.6	20.9	0.0	1.1	0.0	1.4	0.3	0.0	0.8
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	685	2311	1248	60	1660		42	0	36	271	0	118
V/C Ratio(X)	0.18	0.30	0.30	0.41	0.63		0.41	0.00	0.52	0.03	0.00	0.09
Avail Cap(c_a), veh/h	685	2311	1248	100	1660		107	0	93	996	0	434
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	55.9	33.2	0.0	56.8	0.0	57.0	50.2	0.0	50.5
Incr Delay (d2), s/veh	0.0	0.3	0.6	1.7	1.8	0.0	2.3	0.0	4.3	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 BackOfQ(50%), veh/ln	0.8	0.1	0.2	0.7	8.4	0.0	0.5	0.0	0.6	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.7	0.3	0.6	57.5	35.1	0.0	59.1	0.0	61.3	50.2	0.0	50.6
LnGrp LOS	A	A	A	E	D		E	A	E	D	A	D
Approach Vol, veh/h	1188			1072			36			19		
Approach Delay, s/veh	1.3			35.6			60.3			50.5		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	87.8			14.2	51.1	45.1		7.7				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	60.6	50.4		34.0	17.6	* 39		7.1				
Max Q Clear Time (g_c+I), s	13.6	2.0		2.8	4.1	22.9		3.4				
Green Ext Time (p_c), s	0.0	16.7		0.0	0.1	9.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.5

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	849	185	460	1225	0	168	43	362	0	32	182
Future Volume (veh/h)	262	849	185	460	1225	0	168	43	362	0	32	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	291	943	206	511	1361	0	187	48	0	0	36	202
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	514	2608	923	486	2305	0	256	138		0	175	250
Arrive On Green	0.29	0.52	0.52	0.14	0.37	0.00	0.07	0.07	0.00	0.00	0.09	0.09
Sat Flow, veh/h	1781	4985	1540	3456	6537	0	3456	1870	1585	0	1870	2673
Grp Volume(v), veh/h	291	943	206	511	1361	0	187	48	0	0	36	202
Grp Sat Flow(s), veh/h/ln	1781	1662	1540	1728	1570	0	1728	1870	1585	0	1870	1337
Q Serve(g_s), s	16.4	13.1	7.3	16.6	20.7	0.0	6.3	2.9	0.0	0.0	2.1	8.7
Cycle Q Clear(g_c), s	16.4	13.1	7.3	16.6	20.7	0.0	6.3	2.9	0.0	0.0	2.1	8.7
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	514	2608	923	486	2305	0	256	138		0	175	250
V/C Ratio(X)	0.57	0.36	0.22	1.05	0.59	0.00	0.73	0.35		0.00	0.21	0.81
Avail Cap(c_a), veh/h	514	2608	923	486	2305	0	1084	586		0	223	319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.92	0.92	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	16.5	11.1	50.7	30.2	0.0	53.5	51.9	0.0	0.0	49.4	52.4
Incr Delay (d2), s/veh	0.9	0.4	0.6	28.5	0.1	0.0	1.4	0.5	0.0	0.0	0.6	11.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.0	4.8	3.0	8.9	7.5	0.0	2.7	1.4	0.0	0.0	1.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.6	16.9	11.6	79.2	30.3	0.0	54.9	52.4	0.0	0.0	50.0	63.8
LnGrp LOS	D	B	B	F	C	A	D	D		A	D	E
Approach Vol, veh/h	1440			1872			235			A		
Approach Delay, s/veh	20.1			43.6			54.4			61.7		
Approach LOS	C			D			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	67.4		15.9	39.7	48.7		13.6				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	10.0	30.4		14.1	4.0	* 43		37.0				
Max Q Clear Time (g_c+1/3g), s	10.0	15.1		10.7	18.4	22.7		8.3				
Green Ext Time (p_c), s	0.0	9.6		0.3	0.0	16.1		0.5				

Intersection Summary

HCM 6th Ctrl Delay 36.5

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	0	26	7	7	270	16	254	10	395	300	48
Future Volume (veh/h)	59	0	26	7	7	270	16	254	10	395	300	48
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		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	24	27	0	0	296	17	267	11	416	316	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	46	52	0	262	439	140	757	31	477	1242	198
Arrive On Green	0.06	0.06	0.06	0.00	0.00	0.14	0.08	0.22	0.22	0.27	0.41	0.41
Sat Flow, veh/h	1781	798	898	0	1870	3136	1781	3469	142	1781	3049	485
Grp Volume(v), veh/h	44	0	51	0	0	296	17	136	142	416	182	185
Grp Sat Flow(s), veh/h/ln	1781	0	1696	0	1870	1568	1781	1777	1835	1781	1777	1757
Q Serve(g_s), s	1.2	0.0	1.5	0.0	0.0	4.5	0.5	3.3	3.3	11.3	3.4	3.5
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.0	0.0	4.5	0.5	3.3	3.3	11.3	3.4	3.5
Prop In Lane	1.00		0.53	0.00		1.00	1.00		0.08	1.00		0.28
Lane Grp Cap(c), veh/h	104	0	99	0	262	439	140	388	401	477	724	716
V/C Ratio(X)	0.42	0.00	0.52	0.00	0.00	0.67	0.12	0.35	0.35	0.87	0.25	0.26
Avail Cap(c_a), veh/h	140	0	134	0	1069	1793	140	1016	1049	597	1471	1455
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	23.2	0.0	0.0	20.7	21.7	16.8	16.8	17.7	9.9	9.9
Incr Delay (d2), s/veh	2.0	0.0	3.1	0.0	0.0	0.7	0.1	0.4	0.4	9.7	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.6	0.0	0.0	1.6	0.2	1.2	1.3	5.2	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.1	0.0	26.3	0.0	0.0	21.4	21.9	17.2	17.2	27.4	10.1	10.1
LnGrp LOS	C	A	C	A	A	C	C	B	B	C	B	B
Approach Vol, veh/h	95			296			295			783		
Approach Delay, s/veh	25.7			21.4			17.5			19.3		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	15.1		7.0	8.0	24.7		11.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	7.6	29.0		4.0	4.0	42.0		29.0				
Max Q Clear Time (g_c+1/3), s	11.3	5.3		3.5	2.5	5.5		6.5				
Green Ext Time (p_c), s	0.3	1.2		0.0	0.0	1.8		0.7				

Intersection Summary

HCM 6th Ctrl Delay 19.8

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	185	10	10	90	135	199
Future Volume (veh/h)	185	10	10	90	135	199
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	211	0	11	0	148	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	835	438	687		287	
Arrive On Green	0.23	0.00	0.37	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	211	0	11	0	148	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.8	0.0	0.1	0.0	1.6	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.1	0.0	1.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	835	438	687		287	
V/C Ratio(X)	0.25	0.00	0.02		0.52	
Avail Cap(c_a), veh/h	1029	540	687		1179	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.9	0.0	7.7	0.0	16.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	7.7	0.0	18.2	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		211	11	A	148	A
Approach Delay, s/veh		12.0	7.7		18.2	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.9		7.2		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+l1), s		3.8		3.6		2.1
Green Ext Time (p_c), s		0.4		0.3		0.0

Intersection Summary

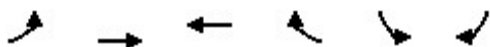
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

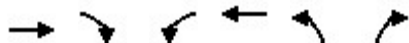
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	13	136	81	0	1	1
Future Vol, veh/h	13	136	81	0	1	1
Conflicting Peds, #/hr	6	0	0	6	0	1
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	160	95	0	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	101	0	-	0	211	55
Stage 1	-	-	-	-	101	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1489	-	-	-	758	1000
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1480	-	-	-	741	993
Mov Cap-2 Maneuver	-	-	-	-	741	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	897	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		9.3		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1480	-	-	-	-	849
HCM Lane V/C Ratio	0.01	-	-	-	-	0.003
HCM Control Delay (s)	7.5	0	-	-	-	9.3
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2689	2846	0	0	0
Future Volume (veh/h)	0	2689	2846	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2923	3093	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	9347	7267
Grp Volume(v), veh/h	0	2923	3093	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7732	9503
V/C Ratio(X)	0.00	1.14	1.20	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7732	9503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	66.5	94.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.1	21.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	80.0	108.3	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		2923	3093	1077	1255	504
Approach Delay, s/veh		80.0	108.3		8.1	
Approach LOS		E	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3108	44	100	1030	33	124
Future Volume (veh/h)	3108	44	100	1030	33	124
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3204	45	103	1062	34	128
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4556	1083	154	5069	190	152
Arrive On Green	0.73	0.73	0.09	1.00	0.11	0.11
Sat Flow, veh/h	6537	1493	3456	6537	1781	1427
Grp Volume(v), veh/h	3204	45	103	1062	34	128
Grp Sat Flow(s), veh/h/ln	1570	1493	1728	1570	1781	1427
Q Serve(g_s), s	33.8	1.0	3.4	0.0	2.1	10.4
Cycle Q Clear(g_c), s	33.8	1.0	3.4	0.0	2.1	10.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4556	1083	154	5069	190	152
V/C Ratio(X)	0.70	0.04	0.67	0.21	0.18	0.84
Avail Cap(c_a), veh/h	4556	1083	223	5069	485	388
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.99	0.99	1.00	1.00
Uniform Delay (d), s/veh	9.1	4.6	52.9	0.0	48.0	51.7
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.1	0.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	0.3	1.4	0.0	0.9	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2	4.6	54.8	0.1	48.2	56.5
LnGrp LOS	A	A	D	A	D	E
Approach Vol, veh/h	3249			1165	162	
Approach Delay, s/veh	9.1			4.9	54.8	
Approach LOS	A			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	90.9			100.5	17.5	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	63.7			75.7	32.1	
Max Q Clear Time (g_c+1/4), s	35.8			2.0	12.4	
Green Ext Time (p_c), s	0.0	27.8		24.0	0.2	
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK



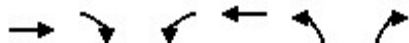
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↑↑↑ ↗			↖ ↑↑↑ ↗				↕		↖ ↗	↕	
Traffic Volume (veh/h)	15	3042	1	8	698	99	1	0	1	5	0	5
Future Volume (veh/h)	15	3042	1	8	698	99	1	0	1	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	3169	1	8	727	103	1	0	1	5	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	25	4151	1	60	4636	642	62	11	28	111	0	55
Arrive On Green	0.03	1.00	1.00	0.03	0.83	0.83	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1781	5147	2	1781	5609	776	463	308	771	1381	0	1545
Grp Volume(v), veh/h	16	2046	1124	8	608	222	2	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	1826	1781	1570	1674	1542	0	0	1381	0	1545
Q Serve(g_s), s	1.0	0.0	0.0	0.5	3.0	3.1	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.5	3.0	3.1	0.1	0.0	0.0	0.4	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.46	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	25	2680	1472	60	3894	1384	101	0	0	111	0	55
V/C Ratio(X)	0.65	0.76	0.76	0.13	0.16	0.16	0.02	0.00	0.00	0.05	0.00	0.09
Avail Cap(c_a), veh/h	80	2680	1472	60	3894	1384	444	0	0	436	0	419
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	0.99	0.99	0.99	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	0.0	0.0	55.3	2.0	2.0	54.9	0.0	0.0	55.0	0.0	55.0
Incr Delay (d2), s/veh	6.6	1.3	2.4	0.4	0.1	0.2	0.0	0.0	0.0	0.1	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 BackOfQ(50%),veh/ln	0.5	0.5	1.0	0.2	0.5	0.6	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	1.3	2.4	55.7	2.1	2.3	54.9	0.0	0.0	55.1	0.0	55.3
LnGrp LOS	E	A	A	E	A	A	D	A	A	E	A	E
Approach Vol, veh/h	3186			838			2			10		
Approach Delay, s/veh	2.0			2.7			54.9			55.2		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	100.5			9.1	6.0	102.8		9.1				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	5.3	66.1		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	3.0	5.1		2.1				
Green Ext Time (p_c), s	0.0	64.4		0.0	0.0	14.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay	2.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3028	11	26	895	0	27
Future Volume (veh/h)	3028	11	26	895	0	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.93	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3122	11	27	923	0	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	3866	14	41	4185	0	38
Arrive On Green	0.75	0.75	0.02	0.84	0.00	0.02
Sat Flow, veh/h	5290	18	1781	5149	0	1538
Grp Volume(v), veh/h	2022	1111	27	923	0	29
Grp Sat Flow(s), veh/h/ln	1662	1821	1781	1662	0	1593
Q Serve(g_s), s	27.0	27.2	1.1	2.6	0.0	1.3
Cycle Q Clear(g_c), s	27.0	27.2	1.1	2.6	0.0	1.3
Prop In Lane		0.01	1.00		0.00	0.97
Lane Grp Cap(c), veh/h	2506	1373	41	4185	0	39
V/C Ratio(X)	0.81	0.81	0.65	0.22	0.00	0.74
Avail Cap(c_a), veh/h	2510	1376	111	4386	0	410
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	5.5	34.2	1.1	0.0	34.3
Incr Delay (d2), s/veh	2.6	4.7	6.2	0.1	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	5.4	0.5	0.0	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.0	10.1	40.5	1.2	0.0	57.9
LnGrp LOS	A	B	D	A	A	E
Approach Vol, veh/h	3133			950	29	
Approach Delay, s/veh	8.8			2.3	57.9	
Approach LOS	A			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	60.0	58.5		64.6	6.1	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	45.4	53.4		62.2	18.2	
Max Q Clear Time (g_c+I), s	13.6	29.2		4.6	3.3	
Green Ext Time (p_c), s	0.0	24.1		20.4	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	50.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	295	0	0	1350	683
Future Vol, veh/h	0	295	0	0	1350	683
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	314	0	0	1436	727

Major/Minor	Minor2		Major2	
Conflicting Flow All	1805	1087	-	0
Stage 1	1805	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	119	~ 181	-	-
Stage 1	76	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	118	~ 180	-	-
Mov Cap-2 Maneuver	118	-	-	-
Stage 1	76	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s\$	401.3	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	180	-	-
HCM Lane V/C Ratio	-	1.743	-	-
HCM Control Delay (s)	0\$	401.3	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	22.1	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	99	607	45	55	616	214	39	39	30	175	39	150
Future Volume (veh/h)	99	607	45	55	616	214	39	39	30	175	39	150
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	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	619	46	56	629	218	40	40	31	179	40	153
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	2171	658	72	2009	610	365	391	326	546	681	602
Arrive On Green	0.02	0.14	0.14	0.04	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	5106	1548	1781	5106	1550	792	1019	850	1319	1777	1571
Grp Volume(v), veh/h	101	619	46	56	629	218	55	0	56	179	40	153
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1550	1121	0	1540	1319	1777	1571
Q Serve(g_s), s	5.8	11.1	2.6	3.2	8.7	10.1	1.9	0.0	2.4	10.2	1.4	6.8
Cycle Q Clear(g_c), s	5.8	11.1	2.6	3.2	8.7	10.1	8.7	0.0	2.4	12.6	1.4	6.8
Prop In Lane	1.00		1.00	1.00		1.00	0.73		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	129	2171	658	72	2009	610	491	0	590	546	681	602
V/C Ratio(X)	0.79	0.29	0.07	0.78	0.31	0.36	0.11	0.00	0.10	0.33	0.06	0.25
Avail Cap(c_a), veh/h	272	2171	658	185	2009	610	491	0	590	546	681	602
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.0	30.0	26.3	48.5	21.4	21.8	22.6	0.0	20.1	24.2	19.8	21.5
Incr Delay (d2), s/veh	3.8	0.3	0.2	6.2	0.4	1.6	0.5	0.0	0.3	1.0	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.9	1.0	1.5	3.3	3.7	1.0	0.0	0.9	3.3	0.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	30.3	26.5	54.7	21.8	23.4	23.1	0.0	20.4	25.2	19.9	22.1
LnGrp LOS	D	C	C	D	C	C	C	A	C	C	B	C
Approach Vol, veh/h		766			903			111			372	
Approach Delay, s/veh		33.0			24.2			21.8			23.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	49.5		44.0	11.8	46.2		44.0				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	10.6	* 37		39.1	15.6	31.9		39.1				
Max Q Clear Time (g_c+l1), s	5.2	13.1		14.6	7.8	12.1		10.7				
Green Ext Time (p_c), s	0.0	6.9		4.2	0.1	9.8		0.4				

Intersection Summary

HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
43: Nimitz Blvd & N Harbor Dr

Year 2030 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	413	0	0	494	323	0	0	0	329	0	36
Future Volume (veh/h)	25	413	0	0	494	323	0	0	0	329	0	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	454	0	0	543	0	0	0	0	399	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	2595	0	2	2367		0	2	2	543	288	0
Arrive On Green	0.02	0.73	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.15	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3521	1870	0
Grp Volume(v), veh/h	27	454	0	0	543	0	0	0	0	399	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1760	1870	0
Q Serve(g_s), s	1.5	4.0	0.0	0.0	12.8	0.0	0.0	0.0	0.0	11.0	0.0	0.0
Cycle Q Clear(g_c), s	1.5	4.0	0.0	0.0	12.8	0.0	0.0	0.0	0.0	11.0	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	37	2595	0	2	2367		0	2	2	543	288	0
V/C Ratio(X)	0.72	0.17	0.00	0.00	0.23		0.00	0.00	0.00	0.74	0.00	0.00
Avail Cap(c_a), veh/h	176	2595	0	176	2367		0	182	154	1281	680	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00	0.79	0.00	0.00
Uniform Delay (d), s/veh	49.6	4.3	0.0	0.0	18.3	0.0	0.0	0.0	0.0	41.2	0.0	0.0
Incr Delay (d2), s/veh	9.4	0.1	0.0	0.0	0.2	0.0	0.0	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 BackOfQ(50%),veh/ln	0.8	1.1	0.0	0.0	5.9	0.0	0.0	0.0	0.0	4.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.0	4.4	0.0	0.0	18.5	0.0	0.0	0.0	0.0	41.7	0.0	0.0
LnGrp LOS	E	A	A	A	B		A	A	A	D	A	A
Approach Vol, veh/h		481			543	A		0			399	
Approach Delay, s/veh		7.5			18.5			0.0			41.7	
Approach LOS		A			B						D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	80.4		21.6	6.5	73.8		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	10.1	* 25		37.1	10.1	23.8		9.9				
Max Q Clear Time (g_c+I1), s	0.0	6.0		13.0	3.5	14.8		0.0				
Green Ext Time (p_c), s	0.0	6.2		0.8	0.0	3.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	266	152	97	282	136	172	719	99	149	795	110
Future Volume (veh/h)	247	266	152	97	282	136	172	719	99	149	795	110
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	277	158	101	294	142	179	749	103	155	828	115
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	492	271	125	471	300	237	1494	205	211	1667	727
Arrive On Green	0.16	0.23	0.23	0.07	0.13	0.13	0.07	0.48	0.48	0.06	0.47	0.47
Sat Flow, veh/h	1781	2183	1201	1781	3554	1535	3456	3134	431	3456	3554	1550
Grp Volume(v), veh/h	257	224	211	101	294	142	179	425	427	155	828	115
Grp Sat Flow(s),veh/h/ln	1781	1777	1607	1781	1777	1535	1728	1777	1788	1728	1777	1550
Q Serve(g_s), s	16.4	12.9	13.6	6.5	9.1	6.2	5.9	19.1	19.1	5.1	18.7	2.6
Cycle Q Clear(g_c), s	16.4	12.9	13.6	6.5	9.1	6.2	5.9	19.1	19.1	5.1	18.7	2.6
Prop In Lane	1.00		0.75	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	284	401	362	125	471	300	237	847	852	211	1667	727
V/C Ratio(X)	0.91	0.56	0.58	0.81	0.62	0.47	0.76	0.50	0.50	0.74	0.50	0.16
Avail Cap(c_a), veh/h	316	554	502	201	888	480	435	847	852	232	1667	727
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.9	39.8	40.1	53.1	47.6	20.1	53.1	20.9	20.9	53.5	21.3	5.0
Incr Delay (d2), s/veh	25.1	0.5	0.6	4.6	0.5	0.4	1.9	2.1	2.1	8.6	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	5.7	5.4	3.1	4.1	2.6	2.6	8.3	8.4	2.5	7.9	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.0	40.2	40.6	57.8	48.1	20.5	54.9	23.0	23.0	62.1	22.4	5.4
LnGrp LOS	E	D	D	E	D	C	D	C	C	E	C	A
Approach Vol, veh/h	692				537		1031				1098	
Approach Delay, s/veh	52.5				42.6		28.5				26.2	
Approach LOS	D				D		C				C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.5	60.6	12.6	31.4	12.3	59.7	23.7	20.3				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	7.8	* 40	13.1	36.2	14.6	32.8	20.6	* 29				
Max Q Clear Time (g_c+I1), s	11.7	21.1	8.5	15.6	7.9	20.7	18.4	11.1				
Green Ext Time (p_c), s	0.0	1.9	0.0	1.0	0.1	2.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	543	149	237	232	74	169	183	577	124	237	82
Future Volume (veh/h)	74	543	149	237	232	74	169	183	577	124	237	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	584	160	255	249	80	182	197	620	133	255	88
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	947	594	323	565	461	212	1232	653	162	1131	418
Arrive On Green	0.06	0.27	0.27	0.09	0.30	0.30	0.12	0.35	0.35	0.09	0.32	0.32
Sat Flow, veh/h	1781	3554	1520	3456	1870	1526	1781	3554	1456	1781	3554	1313
Grp Volume(v), veh/h	80	584	160	255	249	80	182	197	620	133	255	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1520	1728	1870	1526	1781	1777	1456	1781	1777	1313
Q Serve(g_s), s	5.1	16.6	8.3	8.3	12.4	4.5	11.6	4.4	40.0	8.5	6.1	5.7
Cycle Q Clear(g_c), s	5.1	16.6	8.3	8.3	12.4	4.5	11.6	4.4	40.0	8.5	6.1	5.7
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	103	947	594	323	565	461	212	1232	653	162	1131	418
V/C Ratio(X)	0.78	0.62	0.27	0.79	0.44	0.17	0.86	0.16	0.95	0.82	0.23	0.21
Avail Cap(c_a), veh/h	463	1232	716	898	648	529	463	1232	653	463	1232	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	37.1	24.3	51.2	32.4	29.6	49.9	26.1	31.5	51.6	28.9	28.7
Incr Delay (d2), s/veh	4.8	0.8	0.3	1.7	0.3	0.1	3.9	0.1	23.6	4.0	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 BackOfQ(50%),veh/ln	2.4	7.3	3.1	3.7	5.6	1.7	5.4	1.9	20.5	4.0	2.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	37.9	24.6	52.9	32.7	29.7	53.7	26.1	55.1	55.5	28.9	28.8
LnGrp LOS	E	D	C	D	C	C	D	C	E	E	C	C
Approach Vol, veh/h		824			584			999			476	
Approach Delay, s/veh		37.3			41.1			49.1			36.3	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.2	36.7	19.1	43.4	12.0	40.8	15.9	46.7				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	10.3	18.6	13.6	8.1	7.1	14.4	10.5	42.0				
Green Ext Time (p_c), s	0.4	5.5	0.2	1.3	0.1	1.2	0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			42.0									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	83	0	128	65	0	74	29	658	29	68	548	17
Future Volume (veh/h)	83	0	128	65	0	74	29	658	29	68	548	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	0	145	74	0	84	33	748	33	77	623	19
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	41	264	517	0	541	53	1714	75	98	1871	57
Arrive On Green	0.30	0.00	0.30	0.30	0.00	0.30	0.03	0.34	0.34	0.06	0.37	0.37
Sat Flow, veh/h	442	137	894	1239	0	1532	1781	5012	220	1781	5090	155
Grp Volume(v), veh/h	239	0	0	74	0	84	33	507	274	77	416	226
Grp Sat Flow(s), veh/h/ln	1474	0	0	1239	0	1532	1781	1702	1828	1781	1702	1841
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	1.8	0.9	5.5	5.5	2.0	4.2	4.2
Cycle Q Clear(g_c), s	6.2	0.0	0.0	2.1	0.0	1.8	0.9	5.5	5.5	2.0	4.2	4.2
Prop In Lane	0.39		0.61	1.00		1.00	1.00		0.12	1.00		0.08
Lane Grp Cap(c), veh/h	541	0	0	517	0	541	53	1164	625	98	1251	676
V/C Ratio(X)	0.44	0.00	0.00	0.14	0.00	0.16	0.62	0.44	0.44	0.78	0.33	0.33
Avail Cap(c_a), veh/h	1311	0	0	1179	0	1368	1117	4267	2292	1117	4267	2308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.0	0.0	0.0	12.6	0.0	10.7	23.0	12.2	12.2	22.3	10.9	10.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.0	4.4	0.3	0.6	5.0	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.9	0.0	0.0	0.5	0.0	0.5	0.4	1.8	2.0	0.9	1.3	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.2	0.0	0.0	12.7	0.0	10.7	27.4	12.5	12.8	27.3	11.1	11.2
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		239			158			814			719	
Approach Delay, s/veh		14.2			11.6			13.2			12.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	21.8		19.1	5.8	23.0		19.1				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	14.0	7.5		8.2	2.9	6.2		4.1				
Green Ext Time (p_c), s	0.1	8.5		1.1	0.0	5.7		0.4				

Intersection Summary

HCM 6th Ctrl Delay 13.1

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

3: Pacific Hwy & Enterprise St/SPAWAR Dwy

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	24	211	255	65	200	223	597	24	33	1284	74
Future Volume (veh/h)	164	24	211	255	65	200	223	597	24	33	1284	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.84	1.00		0.87	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	25	222	268	68	211	235	628	25	35	1352	78
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	332	237	289	430	316	260	1738	757	45	1279	74
Arrive On Green	0.11	0.18	0.18	0.16	0.23	0.23	0.15	0.49	0.49	0.03	0.37	0.37
Sat Flow, veh/h	1781	1870	1333	1781	1870	1374	1781	3554	1547	1781	3414	197
Grp Volume(v), veh/h	173	25	222	268	68	211	235	628	25	35	702	728
Grp Sat Flow(s),veh/h/ln	1781	1870	1333	1781	1870	1374	1781	1777	1547	1781	1777	1834
Q Serve(g_s), s	15.3	1.8	26.3	23.8	4.7	22.4	20.8	17.6	1.3	3.1	60.0	60.0
Cycle Q Clear(g_c), s	15.3	1.8	26.3	23.8	4.7	22.4	20.8	17.6	1.3	3.1	60.0	60.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	195	332	237	289	430	316	260	1738	757	45	666	687
V/C Ratio(X)	0.89	0.08	0.94	0.93	0.16	0.67	0.90	0.36	0.03	0.77	1.05	1.06
Avail Cap(c_a), veh/h	334	350	250	334	430	316	334	1738	757	334	666	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	70.3	54.9	65.0	66.2	49.3	56.1	67.3	25.4	21.3	77.6	50.1	50.1
Incr Delay (d2), s/veh	7.3	0.0	38.5	27.8	0.1	4.3	24.5	0.2	0.0	9.9	50.2	51.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.9	11.5	13.1	2.2	8.2	11.3	7.6	0.5	1.6	35.8	37.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.6	54.9	103.5	94.0	49.3	60.4	91.7	25.6	21.3	87.5	100.3	101.2
LnGrp LOS	E	D	F	F	D	E	F	C	C	F	F	F
Approach Vol, veh/h	420			547			888			1465		
Approach Delay, s/veh	89.9			75.5			43.0			100.4		
Approach LOS	F			E			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	87.0	30.3	33.3	27.8	68.7	21.9	41.7				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+1.5), s	19.6	19.6	25.8	28.3	22.8	62.0	17.3	24.4				
Green Ext Time (p_c), s	0.0	6.4	0.2	0.1	0.6	0.0	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay 79.6

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	300	35	235	95	0	0	0	0	551	83	41
Future Volume (veh/h)	0	300	35	235	95	0	0	0	0	551	83	41
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	323	38	253	102	0				656	0	44
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	291	581	256	416	795	0				902	0	660
Arrive On Green	0.00	0.16	0.16	0.23	0.23	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1781	3554	1566	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	323	38	253	102	0				656	0	44
Grp Sat Flow(s), veh/h/ln	1781	1777	1566	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	3.5	0.9	5.3	1.0	0.0				7.0	0.0	0.7
Cycle Q Clear(g_c), s	0.0	3.5	0.9	5.3	1.0	0.0				7.0	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	291	581	256	416	795	0				902	0	660
V/C Ratio(X)	0.00	0.56	0.15	0.61	0.13	0.00				0.73	0.00	0.07
Avail Cap(c_a), veh/h	2580	5147	2268	2580	4931	0				3010	0	1597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.9	14.9	14.2	12.5	0.0				14.2	0.0	7.3
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.6	0.1	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 BackOfQ(50%), veh/ln	0.0	1.1	0.2	1.7	0.3	0.0				2.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	16.3	15.0	15.8	12.6	0.0				14.6	0.0	7.3
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	361			355			700					
Approach Delay, s/veh	16.1			14.9			14.1					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	10.8			16.7			14.0					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+l1), s	5.5			9.0			7.3					
Green Ext Time (p_c), s	1.3			1.4			2.4					

Intersection Summary

HCM 6th Ctrl Delay 14.8

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	814	0	0	304	273	30	14	178	36	0	254
Future Volume (veh/h)	100	814	0	0	304	273	30	14	178	36	0	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	895	0	0	334	300	33	15	196	40	0	279
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	146	1430	0	0	470	415	307	19	255	47	0	327
Arrive On Green	0.08	0.40	0.00	0.00	0.26	0.26	0.17	0.17	0.17	0.24	0.00	0.24
Sat Flow, veh/h	1781	3647	0	0	1881	1576	1781	113	1476	198	0	1382
Grp Volume(v), veh/h	110	895	0	0	332	302	33	0	211	319	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1587	1781	0	1589	1580	0	0
Q Serve(g_s), s	4.7	15.8	0.0	0.0	13.3	13.6	1.2	0.0	9.9	15.2	0.0	0.0
Cycle Q Clear(g_c), s	4.7	15.8	0.0	0.0	13.3	13.6	1.2	0.0	9.9	15.2	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.99	1.00		0.93	0.13		0.87
Lane Grp Cap(c), veh/h	146	1430	0	0	468	418	307	0	274	374	0	0
V/C Ratio(X)	0.75	0.63	0.00	0.00	0.71	0.72	0.11	0.00	0.77	0.85	0.00	0.00
Avail Cap(c_a), veh/h	681	2716	0	0	1358	1213	908	0	810	805	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.3	18.7	0.0	0.0	26.2	26.3	27.4	0.0	31.0	28.7	0.0	0.0
Incr Delay (d2), s/veh	9.1	0.2	0.0	0.0	2.4	2.9	0.1	0.0	1.7	2.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.7	0.0	0.0	5.4	5.0	0.5	0.0	3.8	5.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	18.9	0.0	0.0	28.6	29.2	27.4	0.0	32.7	30.8	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	1005				634		244				319	
Approach Delay, s/veh	21.7				28.9		32.0				30.8	
Approach LOS	C				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	36.0		22.6		10.9	25.1	19.9					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	17.8		17.2		6.7	15.6	11.9					
Green Ext Time (p_c), s	4.1		1.4		0.3	5.1	0.9					

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	880	151	259	416	0	0	0	0	899	413	182
Future Volume (veh/h)	0	880	151	259	416	0	0	0	0	899	413	182
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	926	159	273	438	0				946	435	192
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1476	645	358	2031	0				1111	583	492
Arrive On Green	0.00	0.42	0.42	0.14	0.76	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3647	1553	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	926	159	273	438	0				946	435	192
Grp Sat Flow(s),veh/h/ln	0	1777	1553	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	17.3	5.6	6.4	3.0	0.0				20.9	17.5	8.0
Cycle Q Clear(g_c), s	0.0	17.3	5.6	6.4	3.0	0.0				20.9	17.5	8.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1476	645	358	2031	0				1111	583	492
V/C Ratio(X)	0.00	0.63	0.25	0.76	0.22	0.00				0.85	0.75	0.39
Avail Cap(c_a), veh/h	0	1476	645	703	2031	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	19.4	16.0	35.2	4.7	0.0				27.1	25.9	22.6
Incr Delay (d2), s/veh	0.0	1.7	0.8	1.2	0.2	0.0				3.8	2.5	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 BackOfQ(50%),veh/ln	0.0	6.7	1.9	2.5	0.9	0.0				9.1	7.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.1	16.8	36.4	4.9	0.0				30.9	28.4	22.8
LnGrp LOS	A	C	B	D	A	A				C	C	C
Approach Vol, veh/h		1085			711						1573	
Approach Delay, s/veh		20.5			17.0						29.2	
Approach LOS		C			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.1	39.8		31.1		52.9						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	19.3	19.3		22.9		5.0						
Green Ext Time (p_c), s	0.3	0.9		3.3		3.2						

Intersection Summary

HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	339	1424	0	0	540	479	129	219	40	0	0	0
Future Volume (veh/h)	339	1424	0	0	540	479	129	219	40	0	0	0
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		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	357	1499	0	0	568	504	136	231	42			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1215	2645	0	0	1189	530	227	425	76			
Arrive On Green	0.70	1.00	0.00	0.00	0.33	0.33	0.14	0.14	0.14			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1634	3059	548			
Grp Volume(v), veh/h	357	1499	0	0	568	504	149	126	134			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1789	1702	1750			
Q Serve(g_s), s	3.2	0.0	0.0	0.0	10.6	26.1	6.6	5.8	6.0			
Cycle Q Clear(g_c), s	3.2	0.0	0.0	0.0	10.6	26.1	6.6	5.8	6.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.91		0.31			
Lane Grp Cap(c), veh/h	1215	2645	0	0	1189	530	249	237	243			
V/C Ratio(X)	0.29	0.57	0.00	0.00	0.48	0.95	0.60	0.53	0.55			
Avail Cap(c_a), veh/h	1215	2645	0	0	1189	530	598	569	585			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.52	0.52	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.6	0.0	0.0	0.0	22.1	27.3	34.0	33.6	33.7			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.4	28.6	0.9	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.0	0.2	0.0	0.0	4.3	13.0	2.9	2.4	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.5	0.0	0.0	23.5	55.8	34.8	34.3	34.4			
LnGrp LOS	A	A	A	A	C	E	C	C	C			
Approach Vol, veh/h	1856			1072			409					
Approach Delay, s/veh	2.0			38.7			34.5					
Approach LOS	A			D			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.4			34.4			33.0			16.6		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			5.2			28.1			8.6		
Green Ext Time (p_c), s	18.5			0.8			0.0			1.5		

Intersection Summary

HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	23	46	23	1472	25	0	0	0
Future Volume (veh/h)	0	0	0	0	23	46	23	1472	25	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	24	48	24	1549	26			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	62	100	3539	59			
Arrive On Green				0.00	0.06	0.06	0.71	0.71	0.71			
Sat Flow, veh/h				0	557	1113	29	4984	83			
Grp Volume(v), veh/h				0	0	72	585	486	529			
Grp Sat Flow(s),veh/h/ln				0	0	1670	1861	1549	1686			
Q Serve(g_s), s				0.0	0.0	2.0	0.0	6.3	6.3			
Cycle Q Clear(g_c), s				0.0	0.0	2.0	6.2	6.3	6.3			
Prop In Lane				0.00		0.67	0.04		0.05			
Lane Grp Cap(c), veh/h				0	0	93	1401	1100	1197			
V/C Ratio(X)				0.00	0.00	0.78	0.42	0.44	0.44			
Avail Cap(c_a), veh/h				0	0	1411	2430	1963	2137			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	22.1	2.9	2.9	2.9			
Incr Delay (d2), s/veh				0.0	0.0	5.2	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.9	0.9	0.8	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	27.2	3.2	3.3	3.3			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					72			1599				
Approach Delay, s/veh					27.2			3.3				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		39.2						8.1				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		8.3						4.0				
Green Ext Time (p_c), s		25.3						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.3									
HCM 6th LOS			A									

9: Pacific Hwy & W Admiral Boland Wy/Sassafrass St

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	226	100	292	361	85	176	447	72	159	1052	61
Future Volume (veh/h)	131	226	100	292	361	85	176	447	72	159	1052	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	240	106	311	384	90	187	476	77	169	1119	65
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	353	298	339	418	98	216	1570	249	197	1695	98
Arrive On Green	0.09	0.19	0.19	0.19	0.29	0.29	0.12	0.35	0.35	0.11	0.34	0.34
Sat Flow, veh/h	1781	1870	1580	1781	1464	343	1781	4440	703	1781	4934	286
Grp Volume(v), veh/h	139	240	106	311	0	474	187	363	190	169	772	412
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	0	1808	1781	1702	1739	1781	1702	1817
Q Serve(g_s), s	9.3	14.5	7.1	20.8	0.0	30.9	12.5	9.4	9.7	11.3	23.4	23.4
Cycle Q Clear(g_c), s	9.3	14.5	7.1	20.8	0.0	30.9	12.5	9.4	9.7	11.3	23.4	23.4
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.40	1.00		0.16
Lane Grp Cap(c), veh/h	167	353	298	339	0	516	216	1204	615	197	1169	624
V/C Ratio(X)	0.83	0.68	0.36	0.92	0.00	0.92	0.87	0.30	0.31	0.86	0.66	0.66
Avail Cap(c_a), veh/h	440	616	520	440	0	595	440	1680	859	440	1680	897
HCM Platoon Ratio	1.00	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	54.1	45.9	42.9	48.3	0.0	42.1	52.5	28.4	28.5	53.1	33.9	33.9
Incr Delay (d2), s/veh	4.1	0.9	0.3	18.3	0.0	18.0	4.1	0.3	0.5	4.1	1.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	6.9	2.8	11.0	0.0	16.4	5.8	3.8	4.1	5.2	9.7	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	46.7	43.1	66.6	0.0	60.1	56.5	28.7	29.0	57.2	35.0	36.0
LnGrp LOS	E	D	D	E	A	E	E	C	C	E	D	D
Approach Vol, veh/h	485		785			740			1353			
Approach Delay, s/veh	49.2		62.6			35.8			38.1			
Approach LOS	D		E			D			D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	47.9	48.3	27.5	27.8	19.1	47.0	15.8	39.6				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+11.3), s	11.3	11.7	22.8	16.5	14.5	25.4	11.3	32.9				
Green Ext Time (p_c), s	0.2	7.2	0.3	1.1	0.2	16.3	0.2	1.8				

Intersection Summary

HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2030 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	226	321	83	195	0	0	0	0	225	2386	380
Future Volume (veh/h)	0	226	321	83	195	0	0	0	0	225	2386	380
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	243	345	89	210	0				242	2566	409
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	467	395	158	464	0				1098	2759	418
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1581	381	1943	0				1781	4474	678
Grp Volume(v), veh/h	0	243	345	129	170	0				242	1920	1055
Grp Sat Flow(s),veh/h/ln	0	1870	1581	621	1617	0				1781	1702	1748
Q Serve(g_s), s	0.0	10.9	20.4	10.5	8.6	0.0				5.9	48.3	56.8
Cycle Q Clear(g_c), s	0.0	10.9	20.4	21.4	8.6	0.0				5.9	48.3	56.8
Prop In Lane	0.00		1.00	0.69		0.00				1.00		0.39
Lane Grp Cap(c), veh/h	0	467	395	218	404	0				1098	2099	1078
V/C Ratio(X)	0.00	0.52	0.87	0.59	0.42	0.00				0.22	0.91	0.98
Avail Cap(c_a), veh/h	0	577	487	276	498	0				1098	2099	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.5	35.0	38.6	30.6	0.0				8.3	16.4	18.0
Incr Delay (d2), s/veh	0.0	0.3	12.0	1.9	0.5	0.0				0.2	7.0	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
%ile BackOfQ(50%),veh/ln	0.0	5.0	9.1	3.1	3.4	0.0				2.2	18.5	26.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.8	47.0	40.5	31.1	0.0				8.5	23.4	40.5
LnGrp LOS	A	C	D	D	C	A				A	C	D
Approach Vol, veh/h		588			299						3217	
Approach Delay, s/veh		40.7			35.2						27.9	
Approach LOS		D			D						C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				31.0		66.3		31.0				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				22.4		58.8		23.4				
Green Ext Time (p_c), s				1.1		1.2		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			30.2									
HCM 6th LOS			C									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2030 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	168	47	250	0	23	13	255	1557	47	0	0	0
Future Volume (veh/h)	168	47	250	0	23	13	255	1557	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	177	49	263	0	24	14	268	1639	49			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	377	77	1244	0	263	154	979	1935	58			
Arrive On Green	0.24	0.24	0.24	0.00	0.24	0.24	0.55	0.55	0.55			
Sat Flow, veh/h	1058	324	1568	0	1108	646	1781	3522	105			
Grp Volume(v), veh/h	226	0	263	0	0	38	268	824	864			
Grp Sat Flow(s), veh/h/ln	1382	0	1568	0	0	1754	1781	1777	1850			
Q Serve(g_s), s	7.0	0.0	0.0	0.0	0.0	0.9	4.1	20.0	20.2			
Cycle Q Clear(g_c), s	7.9	0.0	0.0	0.0	0.0	0.9	4.1	20.0	20.2			
Prop In Lane	0.78		1.00	0.00		0.37	1.00		0.06			
Lane Grp Cap(c), veh/h	454	0	1244	0	0	417	979	976	1017			
V/C Ratio(X)	0.50	0.00	0.21	0.00	0.00	0.09	0.27	0.84	0.85			
Avail Cap(c_a), veh/h	959	0	1789	0	0	1026	1025	1023	1065			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	18.2	0.0	1.4	0.0	0.0	15.2	6.1	9.7	9.8			
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.0	0.0	0.0	0.1	6.4	6.4			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	2.3	0.0	3.8	0.0	0.0	0.3	1.1	7.1	7.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.0	0.0	1.5	0.0	0.0	15.3	6.3	16.1	16.2			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h	489			38			1956					
Approach Delay, s/veh	9.6			15.3			14.8					
Approach LOS	A			B			B					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	32.7			18.6			18.6					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	29.5			* 30			30.0					
Max Q Clear Time (g_c+I1), s	22.2			9.9			2.9					
Green Ext Time (p_c), s	6.0			2.3			0.1					

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2030 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	54	52	140	3	10	22	596	202	216	1337	22
Future Volume (veh/h)	35	54	52	140	3	10	22	596	202	216	1337	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	63	60	163	3	12	26	693	235	251	1555	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	450	220	209	355	81	325	41	2091	645	369	2551	43
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.02	0.41	0.41	0.11	0.49	0.49
Sat Flow, veh/h	1386	876	834	1259	324	1298	1781	5106	1575	3456	5171	86
Grp Volume(v), veh/h	41	0	123	163	0	15	26	693	235	251	1024	557
Grp Sat Flow(s),veh/h/ln	1386	0	1711	1259	0	1622	1781	1702	1575	1728	1702	1854
Q Serve(g_s), s	1.5	0.0	3.7	7.7	0.0	0.4	0.9	5.9	6.6	4.5	13.9	13.9
Cycle Q Clear(g_c), s	1.9	0.0	3.7	11.4	0.0	0.4	0.9	5.9	6.6	4.5	13.9	13.9
Prop In Lane	1.00		0.49	1.00		0.80	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	450	0	429	355	0	407	41	2091	645	369	1679	914
V/C Ratio(X)	0.09	0.00	0.29	0.46	0.00	0.04	0.63	0.33	0.36	0.68	0.61	0.61
Avail Cap(c_a), veh/h	969	0	1070	827	0	1014	836	4790	1477	1621	3194	1739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	0.0	19.3	23.9	0.0	18.1	31.0	12.9	13.1	27.5	11.7	11.7
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	5.8	0.2	0.6	0.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.4	2.2	0.0	0.2	0.4	2.0	2.1	1.8	4.4	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	0.0	19.5	24.3	0.0	18.1	36.8	13.1	13.7	28.3	12.1	12.4
LnGrp LOS	B	A	B	C	A	B	D	B	B	C	B	B
Approach Vol, veh/h	164			178			954			1832		
Approach Delay, s/veh	19.3			23.8			13.9			14.4		
Approach LOS	B			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	1.2	31.9		20.8	5.9	37.2		20.8				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	30.0	* 60		* 40	30.0	60.0		* 40				
Max Q Clear Time (g_c+I), s	10.5	8.6		5.7	2.9	15.9		13.4				
Green Ext Time (p_c), s	0.4	12.3		0.6	0.0	15.6		0.3				

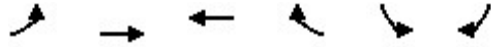
Intersection Summary

HCM 6th Ctrl Delay	15.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	4069	12	0	2283	0	1
Future Vol, veh/h	4069	12	0	2283	0	1
Conflicting Peds, #/hr	0	1	1	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	98	98	98	98	98	98
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	4152	12	0	2330	0	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	2083
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	37
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	37
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		105		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	37	-	-	-		
HCM Lane V/C Ratio	0.028	-	-	-		
HCM Control Delay (s)	105	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.1	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1497	2617	2291	137	87	41
Future Volume (veh/h)	1497	2617	2291	137	87	41
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1559	2726	2386	0	91	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	955	4204	2641		121	107
Arrive On Green	0.28	0.84	0.53	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1559	2726	2386	0	91	43
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	32.6	22.3	50.9	0.0	5.9	3.1
Cycle Q Clear(g_c), s	32.6	22.3	50.9	0.0	5.9	3.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	955	4204	2641		121	107
V/C Ratio(X)	1.63	0.65	0.90		0.75	0.40
Avail Cap(c_a), veh/h	955	4204	2641		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	3.2	25.0	0.0	54.0	52.7
Incr Delay (d2), s/veh	289.6	0.8	2.7	0.0	3.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	51.7	3.4	18.8	0.0	2.7	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	332.3	4.0	27.7	0.0	57.6	53.6
LnGrp LOS	F	A	C		E	D
Approach Vol, veh/h		4285	2386	A	134	
Approach Delay, s/veh		123.4	27.7		56.3	
Approach LOS		F	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.8		13.2	37.0	67.8
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	32.6	* 41
Max Q Clear Time (g_c+I1), s		24.3		7.9	34.6	52.9
Green Ext Time (p_c), s		52.5		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			88.6			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2030 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	322	1554	100	104	996	111	104	307	146	206	782	613
Future Volume (veh/h)	322	1554	100	104	996	111	104	307	146	206	782	613
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	374	1807	116	121	1158	129	121	357	170	240	909	713
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	1588	101	193	1187	132	144	483	215	244	1003	647
Arrive On Green	0.21	0.47	0.47	0.04	0.12	0.12	0.08	0.14	0.14	0.14	0.20	0.20
Sat Flow, veh/h	1781	3390	215	1781	3224	358	1781	3443	1535	1781	5106	1565
Grp Volume(v), veh/h	374	937	986	121	637	650	121	353	174	240	909	713
Grp Sat Flow(s),veh/h/ln	1781	1777	1828	1781	1777	1805	1781	1702	1574	1781	1702	1565
Q Serve(g_s), s	29.2	65.6	65.6	9.4	50.0	50.2	9.4	13.9	15.0	18.8	24.4	27.5
Cycle Q Clear(g_c), s	29.2	65.6	65.6	9.4	50.0	50.2	9.4	13.9	15.0	18.8	24.4	27.5
Prop In Lane	1.00		0.12	1.00		0.20	1.00		0.97	1.00		1.00
Lane Grp Cap(c), veh/h	382	833	857	193	654	665	144	478	221	244	1003	647
V/C Ratio(X)	0.98	1.13	1.15	0.63	0.97	0.98	0.84	0.74	0.79	0.98	0.91	1.10
Avail Cap(c_a), veh/h	382	833	857	193	654	665	244	625	289	244	1003	647
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	0.98	0.98	0.98	0.80	0.80	0.80
Uniform Delay (d), s/veh	54.7	37.2	37.2	64.7	60.8	60.9	63.4	57.7	58.2	60.2	55.0	41.3
Incr Delay (d2), s/veh	40.6	71.9	81.2	12.4	26.7	27.1	4.7	3.5	10.7	46.4	9.9	63.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	43.8	47.2	5.1	28.8	29.4	4.4	6.2	6.6	11.6	11.3	32.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.3	109.1	118.4	77.1	87.5	88.0	68.2	61.2	68.9	106.7	64.9	104.7
LnGrp LOS	F	F	F	E	F	F	E	E	E	F	E	F
Approach Vol, veh/h	2297			1408			648			1862		
Approach Delay, s/veh	110.8			86.8			64.6			85.5		
Approach LOS	F			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.6	24.6	21.0	70.8	15.8	32.5	34.4	57.4				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+20.8)	20.8	17.0	11.4	67.6	11.4	29.5	31.2	52.2				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.1	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	93.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑↑	↔
Traffic Volume (veh/h)	0	1668	161	39	198	0	0	0	0	299	690	1041
Future Volume (veh/h)	0	1668	161	39	198	0	0	0	0	299	690	1041
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1774	171	41	211	0				318	734	1107
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1640	155	66	2021	0				540	1373	543
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3373	311	1781	3647	0				1561	3972	1570
Grp Volume(v), veh/h	0	948	997	41	211	0				365	687	1107
Grp Sat Flow(s),veh/h/ln	0	1777	1813	1781	1777	0				1792	1870	1570
Q Serve(g_s), s	0.0	70.0	70.0	3.2	3.8	0.0				23.4	20.6	48.4
Cycle Q Clear(g_c), s	0.0	70.0	70.0	3.2	3.8	0.0				23.4	20.6	48.4
Prop In Lane	0.00		0.17	1.00		0.00				0.87		1.00
Lane Grp Cap(c), veh/h	0	888	907	66	2021	0				620	1293	543
V/C Ratio(X)	0.00	1.07	1.10	0.62	0.10	0.00				0.59	0.53	2.04
Avail Cap(c_a), veh/h	0	888	907	313	2021	0				620	1293	543
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.74	0.74	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	58.5	58.5	66.4	13.9	0.0				37.6	36.7	45.8
Incr Delay (d2), s/veh	0.0	32.7	47.0	2.6	0.1	0.0				4.1	1.6	474.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	41.5	45.9	1.5	1.5	0.0				11.1	9.9	90.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	91.1	105.4	69.0	13.9	0.0				41.7	38.3	520.1
LnGrp LOS	A	F	F	E	B	A				D	D	F
Approach Vol, veh/h		1945			252						2159	
Approach Delay, s/veh		98.5			22.9						285.9	
Approach LOS		F			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.6	76.6		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+1.2), s	15.2	72.0		50.4		5.8						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	187.0
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2030 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	1007	930	0	0	204	162	42	245	124	0	0	0
Future Volume (veh/h)	1007	930	0	0	204	162	42	245	124	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	1083	1000	0	0	219	174	45	263	133			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1577	1381	0	0	425	322	70	433	202			
Arrive On Green	0.46	0.74	0.00	0.00	0.22	0.22	0.14	0.14	0.14			
Sat Flow, veh/h	3456	1870	0	0	2019	1459	505	3117	1456			
Grp Volume(v), veh/h	1083	1000	0	0	201	192	164	144	133			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1608	1845	1777	1456			
Q Serve(g_s), s	19.9	24.0	0.0	0.0	8.0	8.4	6.7	6.1	6.9			
Cycle Q Clear(g_c), s	19.9	24.0	0.0	0.0	8.0	8.4	6.7	6.1	6.9			
Prop In Lane	1.00		0.00	0.00		0.91	0.27		1.00			
Lane Grp Cap(c), veh/h	1577	1381	0	0	393	355	257	247	202			
V/C Ratio(X)	0.69	0.72	0.00	0.00	0.51	0.54	0.64	0.58	0.66			
Avail Cap(c_a), veh/h	1577	1381	0	0	580	525	394	380	311			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	17.2	5.9	0.0	0.0	27.4	27.6	32.6	32.3	32.6			
Incr Delay (d2), s/veh	0.1	0.3	0.0	0.0	0.4	0.5	0.9	0.8	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.9	5.5	0.0	0.0	3.2	3.1	3.0	2.6	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	6.2	0.0	0.0	27.8	28.0	33.5	33.0	33.9			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	2083			393			441					
Approach Delay, s/veh	12.0			27.9			33.5					
Approach LOS	B			C			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	64.0			41.4			22.6			16.0		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	26.0			21.9			10.4			8.9		
Green Ext Time (p_c), s	5.3			0.1			1.3			1.0		

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	187	1505	894	0	0	2804
Future Volume (veh/h)	187	1505	894	0	0	2804
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	195	0	931	0	0	2921
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	227		3181	0	188	4922
Arrive On Green	0.13	0.00	0.64	0.00	0.00	0.78
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	195	0	931	0	0	2921
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.8	0.0	9.1	0.0	0.0	20.7
Cycle Q Clear(g_c), s	11.8	0.0	9.1	0.0	0.0	20.7
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	227		3181	0	188	4922
V/C Ratio(X)	0.86		0.29	0.00	0.00	0.59
Avail Cap(c_a), veh/h	486		3181	0	643	4922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.00	0.73	0.00	0.00	0.67
Uniform Delay (d), s/veh	47.0	0.0	8.9	0.0	0.0	4.8
Incr Delay (d2), s/veh	2.1	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	2.9	0.0	0.0	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.1	0.0	8.9	0.0	0.0	5.2
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	195	A	931			2921
Approach Delay, s/veh	49.1		8.9			5.2
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	60.0	75.1			91.1	18.9
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	39.7	26.1			70.2	30.0
Max Q Clear Time (g_c+I), s	10.6	11.1			22.7	13.8
Green Ext Time (p_c), s	0.0	7.0			43.2	0.2

Intersection Summary

HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	177	1535	102	142	438	0	0	904	55
Future Volume (veh/h)	0	0	0	177	1535	102	142	438	0	0	904	55
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				186	1616	107	149	461	0	0	952	58
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				228	2116	144	177	1944	0	0	1097	67
Arrive On Green				0.15	0.15	0.15	0.20	0.76	0.00	0.00	0.22	0.22
Sat Flow, veh/h				491	4555	310	1781	5274	0	0	5080	299
Grp Volume(v), veh/h				699	586	624	149	461	0	0	659	351
Grp Sat Flow(s),veh/h/ln				1846	1702	1809	1781	1702	0	0	1702	1806
Q Serve(g_s), s				40.3	36.2	36.3	8.9	2.9	0.0	0.0	20.5	20.6
Cycle Q Clear(g_c), s				40.3	36.2	36.3	8.9	2.9	0.0	0.0	20.5	20.6
Prop In Lane				0.27		0.17	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				857	791	840	177	1944	0	0	760	403
V/C Ratio(X)				0.82	0.74	0.74	0.84	0.24	0.00	0.00	0.87	0.87
Avail Cap(c_a), veh/h				857	791	840	236	2186	0	0	823	437
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.72	0.72	0.72	0.64	0.64	0.00	0.00	0.42	0.42
Uniform Delay (d), s/veh				42.0	40.2	40.3	43.3	8.5	0.0	0.0	41.1	41.2
Incr Delay (d2), s/veh				6.2	4.5	4.3	9.8	0.0	0.0	0.0	4.0	7.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.4	17.5	18.6	4.0	1.0	0.0	0.0	8.9	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				48.2	44.8	44.6	53.1	8.5	0.0	0.0	45.2	48.6
LnGrp LOS				D	D	D	D	A	A	A	D	D
Approach Vol, veh/h					1909			610			1010	
Approach Delay, s/veh					46.0			19.4			46.4	
Approach LOS					D			B			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.8	31.0		57.0	47.8				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				14.6	* 27		51.1	47.1				
Max Q Clear Time (g_c+I1), s				10.9	22.6		42.3	4.9				
Green Ext Time (p_c), s				0.1	2.0		6.2	3.8				
Intersection Summary												
HCM 6th Ctrl Delay											41.5	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	253	1773	0	0	0	0	0	517	77
Future Volume (veh/h)	0	0	0	253	1773	0	0	0	0	0	517	77
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				264	1847	0				0	539	80
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				413	3105	0				0	1063	155
Arrive On Green				0.22	0.22	0.00				0.00	0.24	0.24
Sat Flow, veh/h				616	4796	0				0	4650	653
Grp Volume(v), veh/h				788	1323	0				0	407	212
Grp Sat Flow(s),veh/h/ln				1840	1702	0				0	1702	1730
Q Serve(g_s), s				42.7	38.2	0.0				0.0	11.4	11.7
Cycle Q Clear(g_c), s				42.7	38.2	0.0				0.0	11.4	11.7
Prop In Lane				0.33		0.00				0.00		0.38
Lane Grp Cap(c), veh/h				1234	2284	0				0	808	410
V/C Ratio(X)				0.64	0.58	0.00				0.00	0.50	0.52
Avail Cap(c_a), veh/h				1234	2284	0				0	808	410
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	29.0	0.0				0.0	36.3	36.5
Incr Delay (d2), s/veh				2.5	1.1	0.0				0.0	2.2	4.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.8	17.7	0.0				0.0	5.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.3	30.0	0.0				0.0	38.6	41.1
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2111						619	
Approach Delay, s/veh					31.2						39.4	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				31.0		79.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				26.1		73.8						
Max Q Clear Time (g_c+I1), s				13.7		44.7						
Green Ext Time (p_c), s				0.9		3.6						
Intersection Summary												
HCM 6th Ctrl Delay				33.1								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1956	101	91	193	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1956	101	91	193	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2016	104	94	199	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3458	178	230	525	0			
Arrive On Green				0.00	0.23	0.23	0.07	0.07	0.00			
Sat Flow, veh/h				0	5141	256	1094	2592	0			
Grp Volume(v), veh/h				0	1378	742	156	137	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1824	1816	1777	0			
Q Serve(g_s), s				0.0	39.6	39.8	9.1	8.1	0.0			
Cycle Q Clear(g_c), s				0.0	39.6	39.8	9.1	8.1	0.0			
Prop In Lane				0.00		0.14	0.60		0.00			
Lane Grp Cap(c), veh/h				0	2367	1269	381	373	0			
V/C Ratio(X)				0.00	0.58	0.58	0.41	0.37	0.00			
Avail Cap(c_a), veh/h				0	2367	1269	381	373	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	28.2	28.2	44.7	44.2	0.0			
Incr Delay (d2), s/veh				0.0	1.1	2.0	3.2	2.8	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	18.3	20.1	4.7	4.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	29.2	30.2	47.9	47.0	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2120			293				
Approach Delay, s/veh					29.6			47.5				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.0		28.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						76.5		23.1				
Max Q Clear Time (g_c+I1), s						41.8		11.1				
Green Ext Time (p_c), s						22.5		1.3				
Intersection Summary												
HCM 6th Ctrl Delay											31.7	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	252	2063	0	0	0	0	0	521	52
Future Volume (veh/h)	0	0	0	252	2063	0	0	0	0	0	521	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				268	2195	0				0	554	55
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				349	3072	0				0	908	398
Arrive On Green				0.22	0.22	0.00				0.00	0.26	0.26
Sat Flow, veh/h				535	4881	0				0	3647	1559
Grp Volume(v), veh/h				923	1540	0				0	554	55
Grp Sat Flow(s),veh/h/ln				1844	1702	0				0	1777	1559
Q Serve(g_s), s				51.8	45.9	0.0				0.0	15.1	3.0
Cycle Q Clear(g_c), s				51.8	45.9	0.0				0.0	15.1	3.0
Prop In Lane				0.29		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1202	2219	0				0	908	398
V/C Ratio(X)				0.77	0.69	0.00				0.00	0.61	0.14
Avail Cap(c_a), veh/h				1202	2219	0				0	908	398
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				35.3	33.1	0.0				0.0	36.1	31.6
Incr Delay (d2), s/veh				4.7	1.8	0.0				0.0	3.1	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				27.1	21.5	0.0				0.0	7.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.1	34.9	0.0				0.0	39.2	32.3
LnGrp LOS				D	C	A				A	D	C
Approach Vol, veh/h					2463						609	
Approach Delay, s/veh					36.8						38.6	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				33.0		77.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				28.1		71.7						
Max Q Clear Time (g_c+I1), s				17.1		53.8						
Green Ext Time (p_c), s				3.1		15.4						
Intersection Summary												
HCM 6th Ctrl Delay											37.2	
HCM 6th LOS											D	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2240	27	163	140	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2240	27	163	140	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2358	28	172	147	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3618	43	374	373	0			
Arrive On Green				0.00	0.70	0.70	0.07	0.07	0.00			
Sat Flow, veh/h				0	5370	62	1781	1870	0			
Grp Volume(v), veh/h				0	1542	844	172	147	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1859	1781	1777	0			
Q Serve(g_s), s				0.0	27.7	27.9	10.2	8.7	0.0			
Cycle Q Clear(g_c), s				0.0	27.7	27.9	10.2	8.7	0.0			
Prop In Lane				0.00		0.03	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2367	1293	374	373	0			
V/C Ratio(X)				0.00	0.65	0.65	0.46	0.39	0.00			
Avail Cap(c_a), veh/h				0	2367	1293	374	373	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	9.3	9.3	45.2	44.5	0.0			
Incr Delay (d2), s/veh				0.0	1.4	2.6	4.0	3.1	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	9.5	10.8	5.3	4.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	10.7	11.9	49.2	47.6	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2386			319				
Approach Delay, s/veh					11.2			48.5				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.0		28.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						76.5		23.1				
Max Q Clear Time (g_c+I1), s						29.9		12.2				
Green Ext Time (p_c), s						31.7		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				15.6								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↑
Traffic Vol, veh/h	0	0	0	0	178	656	3	105	0	0	0	25
Future Vol, veh/h	0	0	0	0	178	656	3	105	0	0	0	25
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	185	683	3	109	0	0	0	26

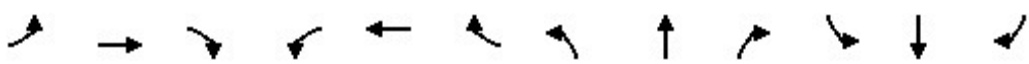
Major/Minor	Major2		Minor1		Minor2	
Conflicting Flow All	-	-	0	93	868	-
Stage 1	-	-	-	0	0	-
Stage 2	-	-	-	93	868	-
Critical Hdwy	-	-	-	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	3.52	4.02	-
Pot Cap-1 Maneuver	0	-	-	881	289	0
Stage 1	0	-	-	-	-	0
Stage 2	0	-	-	904	368	0
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	840	289	-
Mov Cap-2 Maneuver	-	-	-	840	289	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	863	368	-

Approach	WB	NB	SB
HCM Control Delay, s	0	24.8	11.6
HCM LOS		C	B

Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1
Capacity (veh/h)	289	-	-	570
HCM Lane V/C Ratio	0.378	-	-	0.046
HCM Control Delay (s)	24.8	-	-	11.6
HCM Lane LOS	C	-	-	B
HCM 95th %tile Q(veh)	1.7	-	-	0.1

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	885	142	1625	1399	0
Future Volume (veh/h)	0	0	0	0	0	0	0	885	142	1625	1399	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.89	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	903	145	1658	1428	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1465	416	3108	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.29	0.29	0.41	0.64	0.00
Sat Flow, veh/h		0					0	5149	1415	5023	1826	0
Grp Volume(v), veh/h		0.0					0	903	145	1658	1428	0
Grp Sat Flow(s),veh/h/ln							0	1662	1415	1674	1826	0
Q Serve(g_s), s							0.0	17.2	8.9	27.3	65.4	0.0
Cycle Q Clear(g_c), s							0.0	17.2	8.9	27.3	65.4	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1465	416	3108	1740	0
V/C Ratio(X)							0.00	0.62	0.35	0.53	0.82	0.00
Avail Cap(c_a), veh/h							0	1465	416	3108	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.74	0.74	0.00
Uniform Delay (d), s/veh							0.0	33.5	30.5	20.3	12.8	0.0
Incr Delay (d2), s/veh							0.0	1.3	1.3	0.1	3.4	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	6.8	3.1	11.0	22.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	34.8	31.8	20.4	16.1	0.0
LnGrp LOS							A	C	C	C	B	A
Approach Vol, veh/h								1048			3086	
Approach Delay, s/veh								34.4			18.4	
Approach LOS								C			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	72.5	37.5					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	31.9	* 32					67.8					
Max Q Clear Time (g_c+l1), s	29.3	19.2					67.4					
Green Ext Time (p_c), s	1.8	8.3					0.4					
Intersection Summary												
HCM 6th Ctrl Delay			22.5									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	58	1707	73	0	0	0	0	477	241	216	904	0
Future Volume (veh/h)	58	1707	73	0	0	0	0	477	241	216	904	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	59	1742	74				0	487	246	220	922	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	86	2692	830				0	681	295	247	1935	0
Arrive On Green	0.17	0.17	0.17				0.00	0.20	0.20	0.28	0.76	0.00
Sat Flow, veh/h	162	5104	1573				0	3572	1474	1781	5274	0
Grp Volume(v), veh/h	676	1125	74				0	487	246	220	922	0
Grp Sat Flow(s),veh/h/ln	1862	1702	1573				0	1702	1474	1781	1702	0
Q Serve(g_s), s	37.5	33.7	4.3				0.0	14.7	17.6	13.0	7.5	0.0
Cycle Q Clear(g_c), s	37.5	33.7	4.3				0.0	14.7	17.6	13.0	7.5	0.0
Prop In Lane	0.09		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	982	1795	830				0	681	295	247	1935	0
V/C Ratio(X)	0.69	0.63	0.09				0.00	0.71	0.83	0.89	0.48	0.00
Avail Cap(c_a), veh/h	982	1795	830				0	777	336	431	2581	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.40	0.40	0.00
Uniform Delay (d), s/veh	37.0	35.4	23.3				0.0	41.1	42.2	38.9	9.2	0.0
Incr Delay (d2), s/veh	0.4	0.2	0.0				0.0	2.8	15.1	2.3	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 BackOfQ(50%),veh/ft	8.8	15.4	1.6				0.0	6.3	7.5	4.9	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.3	35.5	23.3				0.0	43.9	57.4	41.2	9.2	0.0
LnGrp LOS	D	D	C				A	D	E	D	A	A
Approach Vol, veh/h	1875						733			1142		
Approach Delay, s/veh	35.7						48.4			15.4		
Approach LOS	D						D			B		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	62.9			47.1			19.7		27.4			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	44.1			55.6			26.6		* 25			
Max Q Clear Time (g_c+I1), s	39.5			9.5			15.0		19.6			
Green Ext Time (p_c), s	4.2			5.9			0.2		2.4			

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	2175	46	0	0	0	0	0	0	279	504	0
Future Volume (veh/h)	0	2175	46	0	0	0	0	0	0	279	504	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2390	51							307	554	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3090	66							537	1071	0
Arrive On Green	0.00	0.20	0.20							0.10	0.10	0.00
Sat Flow, veh/h	0	5311	109							1732	3624	0
Grp Volume(v), veh/h	0	1579	862							316	545	0
Grp Sat Flow(s),veh/h/ln	0	1702	1848							1784	1702	0
Q Serve(g_s), s	0.0	48.3	48.6							18.6	16.7	0.0
Cycle Q Clear(g_c), s	0.0	48.3	48.6							18.6	16.7	0.0
Prop In Lane	0.00		0.06							0.97		0.00
Lane Grp Cap(c), veh/h	0	2046	1110							553	1055	0
V/C Ratio(X)	0.00	0.77	0.78							0.57	0.52	0.00
Avail Cap(c_a), veh/h	0	2046	1110							553	1055	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	37.0	37.1							42.4	41.6	0.0
Incr Delay (d2), s/veh	0.0	2.9	5.3							4.3	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	22.8	25.6							9.6	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	39.9	42.4							46.7	43.4	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2441									861	
Approach Delay, s/veh		40.8									44.6	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		71.0	39.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		66.1	34.1									
Max Q Clear Time (g_c+l1), s		50.6	20.6									
Green Ext Time (p_c), s		7.6	2.2									
Intersection Summary												
HCM 6th Ctrl Delay			41.8									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	69	2720	0	0	0	0	0	202	259	0	0	0
Future Volume (veh/h)	69	2720	0	0	0	0	0	202	259	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	76	2989	0				0	222	285			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	80	3373	0				0	454	382			
Arrive On Green	0.22	0.22	0.00				0.00	0.26	0.26			
Sat Flow, veh/h	123	5314	0				0	1870	1496			
Grp Volume(v), veh/h	1154	1911	0				0	222	285			
Grp Sat Flow(s),veh/h/ln	1864	1702	0				0	1777	1496			
Q Serve(g_s), s	67.1	59.4	0.0				0.0	11.7	19.3			
Cycle Q Clear(g_c), s	67.1	59.4	0.0				0.0	11.7	19.3			
Prop In Lane	0.07		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1222	2231	0				0	454	382			
V/C Ratio(X)	0.94	0.86	0.00				0.00	0.49	0.75			
Avail Cap(c_a), veh/h	1222	2231	0				0	454	382			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.1	38.1	0.0				0.0	34.8	37.7			
Incr Delay (d2), s/veh	15.5	4.5	0.0				0.0	3.7	12.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	28.4	0.0				0.0	5.6	8.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	42.6	0.0				0.0	38.6	50.1			
LnGrp LOS	E	D	A				A	D	D			
Approach Vol, veh/h	3065					507						
Approach Delay, s/veh	47.9					45.1						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	77.0					33.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	72.1					28.1						
Max Q Clear Time (g_c+I1), s	69.1					21.3						
Green Ext Time (p_c), s	3.0					1.9						
Intersection Summary												
HCM 6th Ctrl Delay		47.5										
HCM 6th LOS		D										

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	3255	75	0	0	0	0	0	0	345	409	0
Future Volume (veh/h)	0	3255	75	0	0	0	0	0	0	345	409	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3538	82							375	445	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3411	78							439	875	0
Arrive On Green	0.00	0.22	0.22							0.08	0.08	0.00
Sat Flow, veh/h	0	5302	118							1781	3647	0
Grp Volume(v), veh/h	0	2336	1284							375	445	0
Grp Sat Flow(s),veh/h/ln	0	1702	1847							1781	1777	0
Q Serve(g_s), s	0.0	73.1	73.1							22.9	13.2	0.0
Cycle Q Clear(g_c), s	0.0	73.1	73.1							22.9	13.2	0.0
Prop In Lane	0.00		0.06							1.00		0.00
Lane Grp Cap(c), veh/h	0	2262	1228							439	875	0
V/C Ratio(X)	0.00	1.03	1.05							0.85	0.51	0.00
Avail Cap(c_a), veh/h	0	2262	1228							439	875	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	42.9	42.9							48.6	44.1	0.0
Incr Delay (d2), s/veh	0.0	28.0	38.5							18.7	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	42.0	49.1							13.2	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	70.9	81.4							67.3	46.2	0.0
LnGrp LOS	A	F	F							E	D	A
Approach Vol, veh/h		3620									820	
Approach Delay, s/veh		74.6									55.9	
Approach LOS		E									E	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		78.0	32.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		73.1	27.1									
Max Q Clear Time (g_c+l1), s		75.1	24.9									
Green Ext Time (p_c), s		0.0	1.0									
Intersection Summary												
HCM 6th Ctrl Delay			71.2									
HCM 6th LOS			E									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	164	3178	0	0	0	0	0	150	34	0	0	0
Future Volume (veh/h)	164	3178	0	0	0	0	0	150	34	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	193	3739	0				0	176	40			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	178	3692	0				0	507	113			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	242	5188	0				0	2983	642			
Grp Volume(v), veh/h	1480	2452	0				0	107	109			
Grp Sat Flow(s),veh/h/ln	1858	1702	0				0	1777	1755			
Q Serve(g_s), s	80.9	78.7	0.0				0.0	5.8	6.0			
Cycle Q Clear(g_c), s	80.9	78.7	0.0				0.0	5.8	6.0			
Prop In Lane	0.13		0.00				0.00		0.37			
Lane Grp Cap(c), veh/h	1367	2504	0				0	312	308			
V/C Ratio(X)	1.08	0.98	0.00				0.00	0.34	0.36			
Avail Cap(c_a), veh/h	1367	2504	0				0	312	308			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.7	40.8	0.0				0.0	39.8	39.9			
Incr Delay (d2), s/veh	50.2	13.7	0.0				0.0	3.0	3.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	59.1	40.4	0.0				0.0	2.8	2.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	91.9	54.6	0.0				0.0	42.8	43.1			
LnGrp LOS	F	D	A				A	D	D			
Approach Vol, veh/h		3932						216				
Approach Delay, s/veh		68.6						42.9				
Approach LOS		E						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		85.8						24.2				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		80.9						19.3				
Max Q Clear Time (g_c+I1), s		82.9						8.0				
Green Ext Time (p_c), s		0.0						0.9				
Intersection Summary												
HCM 6th Ctrl Delay			67.3									
HCM 6th LOS			E									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑
Traffic Volume (veh/h)	22	1396	1134	53	159	174
Future Volume (veh/h)	22	1396	1134	53	159	174
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	24	1517	1233	58	173	189
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	33	3840	3486	164	481	220
Arrive On Green	0.02	0.77	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	5043	229	3456	1585
Grp Volume(v), veh/h	24	1517	840	451	173	189
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1785	1728	1585
Q Serve(g_s), s	1.6	11.9	0.0	0.0	5.4	13.8
Cycle Q Clear(g_c), s	1.6	11.9	0.0	0.0	5.4	13.8
Prop In Lane	1.00			0.13	1.00	1.00
Lane Grp Cap(c), veh/h	33	3840	2374	1275	481	220
V/C Ratio(X)	0.73	0.40	0.35	0.35	0.36	0.86
Avail Cap(c_a), veh/h	130	3840	2374	1275	1116	512
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.89	0.89	1.00	1.00
Uniform Delay (d), s/veh	57.6	4.5	0.0	0.0	46.0	49.7
Incr Delay (d2), s/veh	9.8	0.3	0.4	0.7	0.2	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.0	0.1	0.2	2.3	11.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.4	4.7	0.4	0.7	46.2	53.4
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1541	1291		362	
Approach Delay, s/veh		5.7	0.5		50.0	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.7		21.3	6.6	90.1
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 69		38.1	8.6	56.2
Max Q Clear Time (g_c+I1), s		13.9		15.8	3.6	2.0
Green Ext Time (p_c), s		38.0		0.7	0.0	28.4

Intersection Summary

HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	117	1399	19	16	1123	9	0	11	26	70	0	30
Future Volume (veh/h)	117	1399	19	16	1123	9	0	11	26	70	0	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	1608	22	18	1291	0	0	13	30	80	0	34
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	684	3564	49	60	1702		58	16	37	213	0	97
Arrive On Green	0.77	1.00	1.00	0.03	0.34	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5067	69	1781	4985	1585	1781	499	1152	3456	0	1577
Grp Volume(v), veh/h	134	1055	575	18	1291	0	0	0	43	80	0	34
Grp Sat Flow(s), veh/h/ln	1781	1662	1813	1781	1662	1585	1781	0	1651	1728	0	1577
Q Serve(g_s), s	2.4	0.0	0.0	1.2	27.2	0.0	0.0	0.0	3.1	2.6	0.0	2.4
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.2	27.2	0.0	0.0	0.0	3.1	2.6	0.0	2.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	684	2337	1275	60	1702		58	0	54	213	0	97
V/C Ratio(X)	0.20	0.45	0.45	0.30	0.76		0.00	0.00	0.80	0.38	0.00	0.35
Avail Cap(c_a), veh/h	684	2337	1275	85	1702		107	0	99	996	0	454
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.7	0.0	0.0	55.6	34.5	0.0	0.0	0.0	56.7	53.2	0.0	53.1
Incr Delay (d2), s/veh	0.0	0.6	1.1	1.0	3.2	0.0	0.0	0.0	9.9	0.4	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.9	0.2	0.4	0.5	11.0	0.0	0.0	0.0	1.4	1.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.8	0.6	1.1	56.6	37.7	0.0	0.0	0.0	66.6	53.6	0.0	53.9
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1764			1309			43			114		
Approach Delay, s/veh	1.4			38.0			66.6			53.7		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.7			12.2	51.0	46.1		8.7				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	51.4			34.0	16.6	* 40		7.1				
Max Q Clear Time (g_c+I), s	2.0			4.6	4.4	29.2		5.1				
Green Ext Time (p_c), s	0.0	30.2		0.3	0.1	8.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.9

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	1443	305	763	1071	0	277	36	695	0	28	156
Future Volume (veh/h)	205	1443	305	763	1071	0	277	36	695	0	28	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	1552	328	820	1152	0	298	39	0	0	30	168
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	593	2335	911	603	1895	0	369	199		0	153	213
Arrive On Green	0.33	0.47	0.47	0.17	0.30	0.00	0.11	0.11	0.00	0.00	0.08	0.08
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2605
Grp Volume(v), veh/h	220	1552	328	820	1152	0	298	39	0	0	30	168
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1303
Q Serve(g_s), s	11.1	28.4	13.1	20.6	18.5	0.0	9.9	2.2	0.0	0.0	1.8	7.5
Cycle Q Clear(g_c), s	11.1	28.4	13.1	20.6	18.5	0.0	9.9	2.2	0.0	0.0	1.8	7.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	593	2335	911	603	1895	0	369	199		0	153	213
V/C Ratio(X)	0.37	0.66	0.36	1.36	0.61	0.00	0.81	0.20		0.00	0.20	0.79
Avail Cap(c_a), veh/h	593	2335	911	603	1895	0	934	506		0	192	267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.61	0.61	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	24.2	13.4	48.7	35.2	0.0	51.5	48.1	0.0	0.0	50.6	53.2
Incr Delay (d2), s/veh	0.1	1.5	1.1	162.7	0.1	0.0	1.0	0.1	0.0	0.0	0.6	11.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	10.7	6.0	22.2	6.8	0.0	4.3	1.0	0.0	0.0	0.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	25.7	14.5	211.4	35.4	0.0	52.5	48.2	0.0	0.0	51.2	64.9
LnGrp LOS	C	C	B	F	D	A	D	D		A	D	E
Approach Vol, veh/h	2100		1972			337		A		198		
Approach Delay, s/veh	24.4		108.5			52.0				62.9		
Approach LOS	C		F			D				E		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	25.0	61.0	14.5		45.0	41.0	17.5					
Change Period (Y+Rc), s	4.4	5.7	4.9		5.7	* 5.4	4.9					
Max Green Setting (Gmax), s	20.6	33.5	12.1		18.8	* 36	31.9					
Max Q Clear Time (g_c+Q2), s	22.6	30.4	9.5		13.1	20.5	11.9					
Green Ext Time (p_c), s	0.0	3.0	0.2		0.1	11.1	0.6					

Intersection Summary

HCM 6th Ctrl Delay 64.1

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	41	5	0	511	22	389	13	750	410	64
Future Volume (veh/h)	80	0	41	5	0	511	22	389	13	750	410	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.96	1.00		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	29	44	0	0	549	23	414	14	798	436	68
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	26	40	0	371	606	58	603	20	816	1840	285
Arrive On Green	0.04	0.04	0.04	0.00	0.00	0.20	0.03	0.17	0.17	0.46	0.60	0.60
Sat Flow, veh/h	1781	641	973	0	1870	3054	1781	3502	118	1781	3078	477
Grp Volume(v), veh/h	64	0	73	0	0	549	23	210	218	798	250	254
Grp Sat Flow(s), veh/h/ln	1781	0	1615	0	1870	1527	1781	1777	1844	1781	1777	1778
Q Serve(g_s), s	4.4	0.0	5.0	0.0	0.0	21.6	1.6	13.6	13.7	54.0	8.1	8.2
Cycle Q Clear(g_c), s	4.4	0.0	5.0	0.0	0.0	21.6	1.6	13.6	13.7	54.0	8.1	8.2
Prop In Lane	1.00		0.60	0.00		1.00	1.00		0.06	1.00		0.27
Lane Grp Cap(c), veh/h	73	0	66	0	371	606	58	306	318	816	1062	1063
V/C Ratio(X)	0.88	0.00	1.11	0.00	0.00	0.91	0.40	0.68	0.69	0.98	0.24	0.24
Avail Cap(c_a), veh/h	73	0	66	0	442	722	87	405	421	827	1144	1145
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.6	0.0	58.9	0.0	0.0	48.1	58.2	47.7	47.7	32.6	11.6	11.6
Incr Delay (d2), s/veh	66.2	0.0	144.1	0.0	0.0	12.3	1.6	2.4	2.4	25.6	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 BackOfQ(50%), veh/ln	3.3	0.0	4.7	0.0	0.0	9.3	0.7	6.2	6.4	28.0	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	124.7	0.0	203.0	0.0	0.0	60.4	59.8	50.0	50.1	58.2	11.6	11.7
LnGrp LOS	F	A	F	A	A	E	E	D	D	E	B	B
Approach Vol, veh/h	137			549			451			1302		
Approach Delay, s/veh	166.4			60.4			50.5			40.2		
Approach LOS	F			E			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	60.2	25.1		9.0	8.0	77.4		28.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	57.0	28.0		5.0	6.0	79.0		29.0				
Max Q Clear Time (g_c+5.0), s	56.0	15.7		7.0	3.6	10.2		23.6				
Green Ext Time (p_c), s	0.2	1.6		0.0	0.0	2.6		0.8				

Intersection Summary

HCM 6th Ctrl Delay 53.7

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	261	17	9	157	177	281
Future Volume (veh/h)	261	17	9	157	177	281
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	301	0	10	0	195	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	866	455	661		348	
Arrive On Green	0.24	0.00	0.35	0.00	0.10	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	301	0	10	0	195	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	2.8	0.0	0.1	0.0	2.1	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.1	0.0	2.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	866	455	661		348	
V/C Ratio(X)	0.35	0.00	0.02		0.56	
Avail Cap(c_a), veh/h	989	519	661		1134	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.4	0.0	8.3	0.0	17.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.0	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.6	0.0	8.4	0.0	18.4	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		301	10	A	195	A
Approach Delay, s/veh		12.6	8.4		18.4	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.6		8.0		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+l1), s		4.8		4.1		2.1
Green Ext Time (p_c), s		0.5		0.4		0.0

Intersection Summary

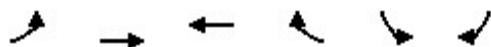
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

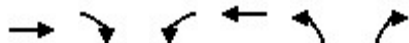
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	196	163	10	1	1
Future Vol, veh/h	9	196	163	10	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	228	190	12	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	202	0	-	0	330	101
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	134	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1367	-	-	-	639	935
Stage 1	-	-	-	-	818	-
Stage 2	-	-	-	-	878	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1367	-	-	-	634	935
Mov Cap-2 Maneuver	-	-	-	-	634	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	878	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		9.8		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1367	-	-	-	756	
HCM Lane V/C Ratio	0.008	-	-	-	0.003	
HCM Control Delay (s)	7.7	0	-	-	9.8	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2730	3072	0	0	0
Future Volume (veh/h)	0	2730	3072	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	2967	3339	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7451
Grp Volume(v), veh/h	0	2967	3339	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	773	2969
V/C Ratio(X)	0.00	1.15	1.30	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	773	2969
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	73.7	136.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.4	28.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	87.2	150.3	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		2967	3339	1077	1255	504
Approach Delay, s/veh		87.2	150.3		8.1	
Approach LOS		F	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3994	58	114	1457	46	169
Future Volume (veh/h)	3994	58	114	1457	46	169
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	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	4295	62	123	1567	49	182
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4339	1093	141	4829	258	207
Arrive On Green	0.69	0.69	0.08	1.00	0.14	0.14
Sat Flow, veh/h	6537	1583	3456	6537	1781	1427
Grp Volume(v), veh/h	4295	62	123	1567	49	182
Grp Sat Flow(s), veh/h/ln	1570	1583	1728	1570	1781	1427
Q Serve(g_s), s	78.9	1.5	4.2	0.0	2.9	14.8
Cycle Q Clear(g_c), s	78.9	1.5	4.2	0.0	2.9	14.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4339	1093	141	4829	258	207
V/C Ratio(X)	0.99	0.06	0.87	0.32	0.19	0.88
Avail Cap(c_a), veh/h	4339	1093	141	4829	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	17.8	5.9	53.9	0.0	44.4	49.5
Incr Delay (d2), s/veh	2.4	0.0	39.7	0.2	0.1	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	23.1	0.4	2.5	0.1	1.3	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.2	5.9	93.6	0.2	44.5	54.2
LnGrp LOS	C	A	F	A	D	D
Approach Vol, veh/h	4357			1690	231	
Approach Delay, s/veh	20.0			7.0	52.2	
Approach LOS	C			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	9.2	86.8		96.0	22.0	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	4.8	66.6		75.8	32.0	
Max Q Clear Time (g_c+1/2), s	10.2	80.9		2.0	16.8	
Green Ext Time (p_c), s	0.0	0.0		43.8	0.3	

Intersection Summary

HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2030 with Project (Alt 4)

Timing Plan: PM PEAK



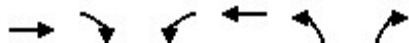
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘			↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	
Traffic Volume (veh/h)	9	4056	0	11	1232	60	0	0	0	5	0	5
Future Volume (veh/h)	9	4056	0	11	1232	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	4315	0	12	1311	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4067	0	60	5195	253	0	49	0	107	0	41
Arrive On Green	0.02	1.00	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	6181	301	0	1870	0	1741	0	1557
Grp Volume(v), veh/h	10	4315	0	12	999	376	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1772	0	1870	0	1741	0	1557
Q Serve(g_s), s	0.7	0.0	0.0	0.8	5.1	5.1	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.8	5.1	5.1	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.17	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4067	0	60	3959	1489	0	49	0	107	0	41
V/C Ratio(X)	0.59	1.06	0.00	0.20	0.25	0.25	0.00	0.00	0.00	0.05	0.00	0.12
Avail Cap(c_a), veh/h	60	4067	0	60	3959	1489	0	507	0	533	0	422
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.96	0.96	0.96	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	0.0	55.4	1.9	1.9	0.0	0.0	0.0	56.1	0.0	56.1
Incr Delay (d2), s/veh	1.1	28.1	0.0	0.6	0.1	0.4	0.0	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 BackOfQ(50%),veh/ln	0.3	10.6	0.0	0.3	0.8	1.0	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	28.1	0.0	56.0	2.1	2.3	0.0	0.0	0.0	56.2	0.0	56.6
LnGrp LOS	E	F	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	4325			1387			0			10		
Approach Delay, s/veh	28.1			2.6			0.0			56.4		
Approach LOS	C			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	101.6			8.0	5.5	104.5		8.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.7	7.1		0.0				
Green Ext Time (p_c), s	0.0	65.1		0.0	0.0	28.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	4035	1	15	1376	0	18
Future Volume (veh/h)	4035	1	15	1376	0	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	4203	1	16	1433	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4086	1	23	4175	0	117
Arrive On Green	0.79	0.79	0.01	0.84	0.00	0.10
Sat Flow, veh/h	5312	1	1781	5149	0	1223
Grp Volume(v), veh/h	2713	1491	16	1433	0	20
Grp Sat Flow(s),veh/h/ln	1662	1826	1781	1662	0	1287
Q Serve(g_s), s	113.9	113.9	1.3	9.4	0.0	2.0
Cycle Q Clear(g_c), s	113.9	113.9	1.3	9.4	0.0	2.0
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2638	1449	23	4175	0	123
V/C Ratio(X)	1.03	1.03	0.68	0.34	0.00	0.16
Avail Cap(c_a), veh/h	2638	1449	50	4248	0	162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	14.8	70.5	2.7	0.0	59.6
Incr Delay (d2), s/veh	25.3	31.3	12.3	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	49.1	45.4	0.7	2.0	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.1	46.1	82.8	2.8	0.0	60.2
LnGrp LOS	F	F	F	A	A	E
Approach Vol, veh/h	4204			1449	20	
Approach Delay, s/veh	42.2			3.7	60.2	
Approach LOS	D			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	63	119.1		125.4	18.1	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	113.9			122.3	18.1	
Max Q Clear Time (g_c+I), s	113.9			11.4	4.0	
Green Ext Time (p_c), s	0.0	0.0		51.2	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			32.5			
HCM 6th LOS			C			

Intersection						
Int Delay, s/veh	261.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	451	0	0	2377	430
Future Vol, veh/h	0	451	0	0	2377	430
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	480	0	0	2529	457

Major/Minor	Minor2		Major2	
Conflicting Flow All	2758	1496	-	0
Stage 1	2758	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	36	~ 96	-	-
Stage 1	18	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	36	~ 96	-	-
Mov Cap-2 Maneuver	36	-	-	-
Stage 1	18	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$ 1887.2		0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	96	-	-
HCM Lane V/C Ratio	-	4.998	-	-
HCM Control Delay (s)	\$ 1887.2	-	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	51.5	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2030 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	107	955	27	20	890	347	33	57	39	236	26	154
Future Volume (veh/h)	107	955	27	20	890	347	33	57	39	236	26	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	1073	30	22	1000	390	37	64	44	265	29	173
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1642	506	444	2546	787	199	344	254	381	516	453
Arrive On Green	0.03	0.11	0.11	0.25	0.50	0.50	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	5106	1573	1781	5106	1577	527	1187	876	1270	1777	1560
Grp Volume(v), veh/h	120	1073	30	22	1000	390	69	0	76	265	29	173
Grp Sat Flow(s),veh/h/ln	1781	1702	1573	1781	1702	1577	1076	0	1515	1270	1777	1560
Q Serve(g_s), s	8.0	24.2	2.1	1.1	14.7	19.8	2.5	0.0	4.5	23.7	1.4	10.6
Cycle Q Clear(g_c), s	8.0	24.2	2.1	1.1	14.7	19.8	13.1	0.0	4.5	28.2	1.4	10.6
Prop In Lane	1.00		1.00	1.00		1.00	0.54		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	147	1642	506	444	2546	787	358	0	440	381	516	453
V/C Ratio(X)	0.81	0.65	0.06	0.05	0.39	0.50	0.19	0.00	0.17	0.70	0.06	0.38
Avail Cap(c_a), veh/h	261	2183	673	444	2546	787	503	0	594	511	697	612
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	0.93	0.93	0.93	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	47.2	37.3	34.3	18.8	20.0	34.9	0.0	31.8	42.3	30.7	34.0
Incr Delay (d2), s/veh	3.9	1.9	0.2	0.0	0.4	2.1	0.1	0.0	0.1	6.6	0.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	11.3	0.8	0.5	5.5	7.3	1.7	0.0	1.7	8.1	0.6	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	49.1	37.5	34.3	19.2	22.1	35.0	0.0	31.9	49.0	30.9	35.5
LnGrp LOS	E	D	D	C	B	C	D	A	C	D	C	D
Approach Vol, veh/h		1223			1412			145			467	
Approach Delay, s/veh		50.0			20.2			33.4			42.9	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.0	44.3		39.7	14.3	65.9		39.7				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	6.6	* 51		47.1	17.6	39.9		47.1				
Max Q Clear Time (g_c+I1), s	3.1	26.2		30.2	10.0	21.8		15.1				
Green Ext Time (p_c), s	0.0	12.4		4.6	0.1	13.8		0.6				

Intersection Summary

HCM 6th Ctrl Delay	35.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	50	616	1	0	558	524	1	0	0	461	0	33
Future Volume (veh/h)	50	616	1	0	558	524	1	0	0	461	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	677	1	0	613	0	1	0	0	541	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	1010	1	733	2023		52	0	46	664	348	0
Arrive On Green	0.04	0.19	0.19	0.00	0.19	0.00	0.03	0.00	0.00	0.19	0.00	0.00
Sat Flow, veh/h	1781	5265	8	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	55	438	240	0	613	0	1	0	0	541	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	3.7	14.3	14.3	0.0	17.8	0.0	0.1	0.0	0.0	17.5	0.0	0.0
Cycle Q Clear(g_c), s	3.7	14.3	14.3	0.0	17.8	0.0	0.1	0.0	0.0	17.5	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	71	653	358	733	2023		52	0	46	664	348	0
V/C Ratio(X)	0.78	0.67	0.67	0.00	0.30		0.02	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	98	814	447	733	2023		445	0	396	1098	577	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.92	0.00	1.00	0.00	0.00	0.88	0.00	0.00
Uniform Delay (d), s/veh	57.1	45.0	45.0	0.0	28.2	0.0	56.6	0.0	0.0	46.8	0.0	0.0
Incr Delay (d2), s/veh	14.9	5.4	9.6	0.0	0.4	0.0	0.1	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	6.4	7.4	0.0	8.5	0.0	0.0	0.0	0.0	7.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	50.4	54.6	0.0	28.6	0.0	56.7	0.0	0.0	47.7	0.0	0.0
LnGrp LOS	E	D	D	A	C		E	A	A	D	A	A
Approach Vol, veh/h	733			613			A			541		
Approach Delay, s/veh	53.4			28.6			56.7			47.7		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	55.3	28.1		28.3	9.2	74.2		8.4				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 29		37.0	6.6	25.3		30.0				
Max Q Clear Time (g_c+I10), s	16.3			19.5	5.7	19.8		2.1				
Green Ext Time (p_c), s	0.0	6.7		1.0	0.0	2.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	253	127	86	469	183	198	882	86	120	816	184
Future Volume (veh/h)	284	253	127	86	469	183	198	882	86	120	816	184
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	269	135	91	499	195	211	938	91	128	868	196
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	673	327	111	604	341	257	1528	148	172	1573	697
Arrive On Green	0.18	0.29	0.29	0.06	0.17	0.17	0.07	0.47	0.47	0.05	0.44	0.44
Sat Flow, veh/h	1781	2305	1120	1781	3554	1543	3456	3271	317	3456	3554	1575
Grp Volume(v), veh/h	302	205	199	91	499	195	211	510	519	128	868	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1648	1781	1777	1543	1728	1777	1811	1728	1777	1575
Q Serve(g_s), s	25.1	13.9	14.6	7.6	20.3	10.9	9.0	32.1	32.1	5.5	27.0	6.5
Cycle Q Clear(g_c), s	25.1	13.9	14.6	7.6	20.3	10.9	9.0	32.1	32.1	5.5	27.0	6.5
Prop In Lane	1.00		0.68	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	323	519	481	111	604	341	257	830	846	172	1573	697
V/C Ratio(X)	0.94	0.40	0.41	0.82	0.83	0.57	0.82	0.61	0.61	0.74	0.55	0.28
Avail Cap(c_a), veh/h	387	570	528	181	734	398	544	830	846	203	1573	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	42.5	42.8	69.5	60.1	25.7	68.4	29.8	29.8	70.3	30.8	8.0
Incr Delay (d2), s/veh	25.7	0.2	0.2	5.5	5.1	0.5	2.5	3.4	3.3	9.1	1.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	3.7	6.2	6.0	3.6	9.6	4.1	4.1	14.6	14.8	2.7	12.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.3	42.7	43.0	75.0	65.2	26.2	70.9	33.2	33.2	79.5	32.2	9.0
LnGrp LOS	F	D	D	E	E	C	E	C	C	E	C	A
Approach Vol, veh/h	706			785			1240			1192		
Approach Delay, s/veh	61.4			56.6			39.6			33.5		
Approach LOS	E			E			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.9	75.4	13.8	49.0	15.5	71.7	32.4	30.4				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	8.8	* 59	15.2	48.1	23.6	43.8	32.6	* 31				
Max Q Clear Time (g_c+11), s	17.5	34.1	9.6	16.6	11.0	29.0	27.1	22.3				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.9	0.1	2.4	0.1	1.1				

Intersection Summary

HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	138	63	351	517	61	199	307	62	60	291	93
Future Volume (veh/h)	101	138	63	351	517	61	199	307	62	60	291	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	148	68	377	556	66	214	330	67	65	313	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	833	369	415	639	76	251	972	405	84	642	193
Arrive On Green	0.08	0.23	0.23	0.23	0.39	0.39	0.14	0.26	0.26	0.05	0.17	0.17
Sat Flow, veh/h	1781	3554	1575	1781	1640	195	1781	3741	1559	1781	3863	1159
Grp Volume(v), veh/h	109	148	68	377	0	622	214	330	67	65	273	140
Grp Sat Flow(s),veh/h/ln	1781	1777	1575	1781	0	1834	1781	1870	1559	1781	1702	1618
Q Serve(g_s), s	5.1	2.8	2.9	17.3	0.0	26.4	9.9	6.0	2.8	3.0	6.1	6.6
Cycle Q Clear(g_c), s	5.1	2.8	2.9	17.3	0.0	26.4	9.9	6.0	2.8	3.0	6.1	6.6
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		0.72
Lane Grp Cap(c), veh/h	138	833	369	415	0	715	251	972	405	84	566	269
V/C Ratio(X)	0.79	0.18	0.18	0.91	0.00	0.87	0.85	0.34	0.17	0.78	0.48	0.52
Avail Cap(c_a), veh/h	186	1393	617	499	0	1042	288	1533	639	209	1245	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	25.7	25.8	31.4	0.0	23.7	35.3	25.3	24.1	39.7	31.8	32.0
Incr Delay (d2), s/veh	10.4	0.0	0.1	16.8	0.0	5.6	17.4	0.4	0.4	5.7	1.1	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.2	1.1	9.2	0.0	12.0	5.3	2.6	1.1	1.4	2.5	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.6	25.8	25.9	48.2	0.0	29.4	52.8	25.7	24.4	45.4	33.0	34.8
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h	325			999			611			478		
Approach Delay, s/veh	33.4			36.5			35.0			35.2		
Approach LOS	C			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	27.2	24.0	24.6	16.3	19.3	10.9	37.7				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	9.9	34.5	23.6	33.0	13.6	30.8	8.8	47.8				
Max Q Clear Time (g_c+1.5), s	15.0	8.0	19.3	4.9	11.9	8.6	7.1	28.4				
Green Ext Time (p_c), s	0.0	4.1	0.3	0.8	0.1	4.2	0.0	4.4				

Intersection Summary

HCM 6th Ctrl Delay 35.4

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	48	39	281	6	7	43	516	403	103	635	20
Future Volume (veh/h)	27	48	39	281	6	7	43	516	403	103	635	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	53	43	309	7	8	47	567	443	113	698	22
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	545	301	244	471	251	287	63	1309	573	145	2103	66
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.04	0.37	0.37	0.08	0.41	0.41
Sat Flow, veh/h	1395	954	774	1297	795	909	1781	3554	1556	1781	5080	160
Grp Volume(v), veh/h	30	0	96	309	0	15	47	567	443	113	467	253
Grp Sat Flow(s),veh/h/ln	1395	0	1728	1297	0	1704	1781	1777	1556	1781	1702	1836
Q Serve(g_s), s	1.0	0.0	2.6	14.4	0.0	0.4	1.7	7.6	16.0	3.9	5.9	5.9
Cycle Q Clear(g_c), s	1.3	0.0	2.6	16.9	0.0	0.4	1.7	7.6	16.0	3.9	5.9	5.9
Prop In Lane	1.00		0.45	1.00		0.53	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	545	0	546	471	0	538	63	1309	573	145	1409	760
V/C Ratio(X)	0.06	0.00	0.18	0.66	0.00	0.03	0.74	0.43	0.77	0.78	0.33	0.33
Avail Cap(c_a), veh/h	804	0	866	695	0	832	180	1523	667	213	1486	801
HCM Platoon Ratio	1.00	1.00	1.00	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	15.5	0.0	15.7	21.9	0.0	15.0	30.3	15.1	17.7	28.6	12.6	12.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.6	0.0	0.0	6.3	0.4	5.9	5.7	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 BackOfQ(50%),veh/ln	0.3	0.0	1.0	4.2	0.0	0.1	0.8	2.8	5.9	1.8	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	15.8	22.5	0.0	15.0	36.6	15.5	23.6	34.3	12.8	12.9
LnGrp LOS	B	A	B	C	A	B	D	B	C	C	B	B
Approach Vol, veh/h	126		324			1057			833			
Approach Delay, s/veh	15.7		22.1			19.8			15.7			
Approach LOS	B		C			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	9.6	29.1	24.8		6.7	32.0	24.8					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	7.6	* 27	* 32		6.4	27.7	* 31					
Max Q Clear Time (g_c+1/9), s	15.9	18.0	4.6		3.7	7.9	18.9					
Green Ext Time (p_c), s	0.0	5.4	0.4		0.0	4.4	0.5					

Intersection Summary

HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

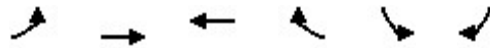
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↘	↘	↘
Traffic Volume (veh/h)	1356	1670	2633	56	0	83
Future Volume (veh/h)	1356	1670	2633	56	0	83
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1541	1898	2992	0	0	94
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1326	3051	2921		100	507
Arrive On Green	0.26	0.88	0.59	0.00	0.00	0.06
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1541	1898	2992	0	0	94
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	39.6	21.9	87.9	0.0	0.0	6.4
Cycle Q Clear(g_c), s	39.6	21.9	87.9	0.0	0.0	6.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1326	3051	2921		100	507
V/C Ratio(X)	1.16	0.62	1.02		0.00	0.19
Avail Cap(c_a), veh/h	1326	3051	2921		202	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	0.00	1.00
Uniform Delay (d), s/veh	55.2	2.4	31.0	0.0	0.0	36.9
Incr Delay (d2), s/veh	81.6	1.0	12.9	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.3	3.5	35.7	0.0	0.0	6.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	136.8	3.4	43.9	0.0	0.0	37.0
LnGrp LOS	F	A	F		A	D
Approach Vol, veh/h		3439	2992	A	94	
Approach Delay, s/veh		63.2	43.9		37.0	
Approach LOS		E	D		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		137.2		12.8	44.0	93.2
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	39.6	* 80
Max Q Clear Time (g_c+I1), s		23.9		8.4	41.6	89.9
Green Ext Time (p_c), s		84.3		0.1	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	615	885	75	77	1085	39	137	257	70	42	150	708
Future Volume (veh/h)	615	885	75	77	1085	39	137	257	70	42	150	708
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	661	952	81	83	1167	42	147	276	75	45	161	761
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	681	2003	170	170	1762	63	161	510	410	58	763	1087
Arrive On Green	0.20	0.61	0.61	0.10	0.50	0.50	0.09	0.27	0.27	0.03	0.21	0.21
Sat Flow, veh/h	3456	3310	282	1781	3498	126	1781	1870	1503	1781	3554	2500
Grp Volume(v), veh/h	661	511	522	83	593	616	147	276	75	45	161	761
Grp Sat Flow(s),veh/h/ln	1728	1777	1815	1781	1777	1847	1781	1870	1503	1781	1777	1250
Q Serve(g_s), s	25.6	21.5	21.5	6.0	33.5	33.6	11.0	17.0	5.2	3.4	5.0	29.0
Cycle Q Clear(g_c), s	25.6	21.5	21.5	6.0	33.5	33.6	11.0	17.0	5.2	3.4	5.0	29.0
Prop In Lane	1.00		0.16	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	681	1075	1098	170	895	931	161	510	410	58	763	1087
V/C Ratio(X)	0.97	0.48	0.48	0.49	0.66	0.66	0.91	0.54	0.18	0.78	0.21	0.70
Avail Cap(c_a), veh/h	681	1075	1098	170	895	931	161	510	410	119	763	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	0.98	0.98	0.98	0.89	0.89	0.89
Uniform Delay (d), s/veh	53.8	14.8	14.8	57.9	24.9	25.0	60.9	41.9	37.6	64.8	43.6	33.5
Incr Delay (d2), s/veh	27.3	1.5	1.5	7.7	3.1	2.9	45.0	1.2	0.2	7.2	0.2	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	3.5	8.7	8.9	3.0	14.3	14.9	7.0	8.0	1.9	1.6	2.2	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.1	16.3	16.2	65.6	28.0	27.9	105.9	43.1	37.8	72.0	43.8	35.5
LnGrp LOS	F	B	B	E	C	C	F	D	D	E	D	D
Approach Vol, veh/h	1694				1292		498				967	
Approach Delay, s/veh	41.6				30.4		60.9				38.6	
Approach LOS	D				C		E				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.8	41.8	17.3	88.1	16.6	34.0	31.0	74.4				
Change Period (Y+Rc), s	4.4	* 5	4.4	* 5.8	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	9.0	* 32	12.9	* 62	12.2	29.0	26.6	47.6				
Max Q Clear Time (g_c+15), s	15.4	19.0	8.0	23.5	13.0	31.0	27.6	35.6				
Green Ext Time (p_c), s	0.0	1.6	0.0	11.1	0.0	0.0	0.0	5.4				

Intersection Summary

HCM 6th Ctrl Delay 39.8

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↑↑	↗
Traffic Volume (veh/h)	0	900	75	30	179	0	0	0	0	187	223	1047
Future Volume (veh/h)	0	900	75	30	179	0	0	0	0	187	223	1047
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1011	84	34	201	0				210	251	1176
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1373	114	776	3136	0				381	1268	1237
Arrive On Green	0.00	0.41	0.41	0.44	0.88	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3411	276	1781	3647	0				833	2773	2706
Grp Volume(v), veh/h	0	541	554	34	201	0				461	0	1176
Grp Sat Flow(s),veh/h/ln	0	1777	1816	1781	1777	0				1829	1777	1353
Q Serve(g_s), s	0.0	38.5	38.6	1.6	1.1	0.0				27.4	0.0	62.6
Cycle Q Clear(g_c), s	0.0	38.5	38.6	1.6	1.1	0.0				27.4	0.0	62.6
Prop In Lane	0.00		0.15	1.00		0.00				0.46		1.00
Lane Grp Cap(c), veh/h	0	736	752	776	3136	0				836	813	1237
V/C Ratio(X)	0.00	0.74	0.74	0.04	0.06	0.00				0.55	0.00	0.95
Avail Cap(c_a), veh/h	0	736	752	776	3136	0				836	813	1237
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.76	0.76	0.50	0.50	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.0	37.1	24.3	1.1	0.0				29.5	0.0	39.1
Incr Delay (d2), s/veh	0.0	5.0	4.9	0.0	0.0	0.0				2.6	0.0	16.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.4	17.8	0.7	0.2	0.0				12.9	0.0	23.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.0	41.9	24.3	1.1	0.0				32.1	0.0	55.2
LnGrp LOS	A	D	D	C	A	A				C	A	E
Approach Vol, veh/h		1095			235						1637	
Approach Delay, s/veh		42.0			4.5						48.7	
Approach LOS		D			A						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	33.6	67.0		74.0		140.6						
Change Period (Y+Rc), s	6.6	* 4.9		5.4		6.6						
Max Green Setting (Gmax), s	4.6	* 62		68.6		69.4						
Max Q Clear Time (g_c+I), s	13.6	40.6		64.6		3.1						
Green Ext Time (p_c), s	0.0	2.2		1.5		0.4						

Intersection Summary

HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1966	73	0	0	0	0	0	0	203	351	0
Future Volume (veh/h)	0	1966	73	0	0	0	0	0	0	203	351	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2006	74							207	358	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3221	119							487	972	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5222	186							1781	3647	0
Grp Volume(v), veh/h	0	1350	730							207	358	0
Grp Sat Flow(s),veh/h/ln	0	1702	1836							1781	1777	0
Q Serve(g_s), s	0.0	39.6	39.8							12.1	10.4	0.0
Cycle Q Clear(g_c), s	0.0	39.6	39.8							12.1	10.4	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2169	1170							487	972	0
V/C Ratio(X)	0.00	0.62	0.62							0.42	0.37	0.00
Avail Cap(c_a), veh/h	0	2169	1170							487	972	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	31.4	31.5							41.8	41.1	0.0
Incr Delay (d2), s/veh	0.0	1.4	2.5							2.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.4	20.3							6.2	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.8	34.0							44.5	42.2	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		2080									565	
Approach Delay, s/veh		33.2									43.0	
Approach LOS		C									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		75.0	35.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		70.1	30.1									
Max Q Clear Time (g_c+l1), s		41.8	14.1									
Green Ext Time (p_c), s		19.2	2.8									
Intersection Summary												
HCM 6th Ctrl Delay			35.3									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	169	1822	0	0	0	0	0	92	37	0	0	0
Future Volume (veh/h)	169	1822	0	0	0	0	0	92	37	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	184	1980	0				0	100	40			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	294	3388	0				0	528	201			
Arrive On Green	0.23	0.23	0.00				0.00	0.21	0.21			
Sat Flow, veh/h	420	5002	0				0	2610	958			
Grp Volume(v), veh/h	810	1354	0				0	69	71			
Grp Sat Flow(s),veh/h/ln	1849	1702	0				0	1777	1698			
Q Serve(g_s), s	43.3	38.7	0.0				0.0	3.5	3.8			
Cycle Q Clear(g_c), s	43.3	38.7	0.0				0.0	3.5	3.8			
Prop In Lane	0.23	0.00					0.00	0.56				
Lane Grp Cap(c), veh/h	1296	2386	0				0	373	357			
V/C Ratio(X)	0.63	0.57	0.00				0.00	0.19	0.20			
Avail Cap(c_a), veh/h	1296	2386	0				0	373	357			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	29.3	27.5	0.0				0.0	35.7	35.8			
Incr Delay (d2), s/veh	2.3	1.0	0.0				0.0	1.1	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	22.2	17.9	0.0				0.0	1.7	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	28.5	0.0				0.0	36.8	37.1			
LnGrp LOS	C	C	A				A	D	D			
Approach Vol, veh/h	2164					140						
Approach Delay, s/veh	29.7					36.9						
Approach LOS	C					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	82.0					28.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	77.1					23.1						
Max Q Clear Time (g_c+I1), s	45.3					5.8						
Green Ext Time (p_c), s	21.7					0.7						
Intersection Summary												
HCM 6th Ctrl Delay	30.1											
HCM 6th LOS	C											



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	860	207	591	1408	0	178	37	379	0	28	145
Future Volume (veh/h)	235	860	207	591	1408	0	178	37	379	0	28	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	887	213	609	1452	0	184	38	0	0	29	149
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	269	1263	576	1348	3160	0	426	231		0	111	153
Arrive On Green	0.15	0.25	0.25	0.39	0.50	0.00	0.12	0.12	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1503	3456	6537	0	3456	1870	1585	0	1870	2578
Grp Volume(v), veh/h	242	887	213	609	1452	0	184	38	0	0	29	149
Grp Sat Flow(s), veh/h/ln	1781	1662	1503	1728	1570	0	1728	1870	1585	0	1870	1289
Q Serve(g_s), s	16.0	19.4	12.4	15.7	17.9	0.0	5.9	2.2	0.0	0.0	1.8	6.9
Cycle Q Clear(g_c), s	16.0	19.4	12.4	15.7	17.9	0.0	5.9	2.2	0.0	0.0	1.8	6.9
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	269	1263	576	1348	3160	0	426	231		0	111	153
V/C Ratio(X)	0.90	0.70	0.37	0.45	0.46	0.00	0.43	0.16		0.00	0.26	0.98
Avail Cap(c_a), veh/h	321	1263	576	1348	3160	0	1066	577		0	111	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	40.7	27.2	27.1	19.3	0.0	48.7	47.1	0.0	0.0	53.9	56.4
Incr Delay (d2), s/veh	22.0	3.3	1.8	0.0	0.0	0.0	0.2	0.1	0.0	0.0	1.2	65.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	8.6	8.1	5.6	6.2	6.2	0.0	2.6	1.0	0.0	0.0	0.9	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	72.1	44.0	29.0	27.1	19.3	0.0	48.9	47.2	0.0	0.0	55.2	122.1
LnGrp LOS	E	D	C	C	B	A	D	D		A	E	F
Approach Vol, veh/h	1342			2061			222			A	178	
Approach Delay, s/veh	46.7			21.6			48.6				111.2	
Approach LOS	D			C			D				F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	52.2	36.1		12.0	22.5	65.8		19.7				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	25.6	* 30		7.1	21.6	34.7		37.0				
Max Q Clear Time (g_c+117), s	117.5	21.4		8.9	18.0	19.9		7.9				
Green Ext Time (p_c), s	0.8	6.1		0.0	0.1	12.5		0.4				

Intersection Summary

HCM 6th Ctrl Delay 36.2

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	480	0	0	1432	844
Future Volume (veh/h)	0	480	0	0	1432	844
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				0.99
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	533			1591	938
Peak Hour Factor	0.90	0.90			0.90	0.90
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2949	1365
Arrive On Green	0.00	0.00			0.87	0.87
Sat Flow, veh/h	0				3572	1576
Grp Volume(v), veh/h	0.0				1591	938
Grp Sat Flow(s),veh/h/ln					1702	1576
Q Serve(g_s), s					3.9	6.6
Cycle Q Clear(g_c), s					3.9	6.6
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2949	1365
V/C Ratio(X)					0.54	0.69
Avail Cap(c_a), veh/h					3303	1529
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.6	0.7
Incr Delay (d2), s/veh					0.2	1.1
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.7	1.9
LnGrp LOS					A	A
Approach Vol, veh/h					2529	
Approach Delay, s/veh					1.1	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					33.7	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					32.7	
Max Q Clear Time (g_c+I1), s					8.6	
Green Ext Time (p_c), s					20.6	
Intersection Summary						
HCM 6th Ctrl Delay			1.1			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	113	202	85	323	479	83	189	296	120	54	286	84
Future Volume (veh/h)	113	202	85	323	479	83	189	296	120	54	286	84
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		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	122	217	91	347	515	89	203	318	129	58	308	90
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	886	392	386	589	102	240	1010	418	74	698	191
Arrive On Green	0.09	0.25	0.25	0.22	0.38	0.38	0.13	0.27	0.27	0.04	0.18	0.18
Sat Flow, veh/h	1781	3554	1572	1781	1552	268	1781	3741	1550	1781	3938	1078
Grp Volume(v), veh/h	122	217	91	347	0	604	203	318	129	58	263	135
Grp Sat Flow(s),veh/h/ln	1781	1777	1572	1781	0	1820	1781	1870	1550	1781	1702	1613
Q Serve(g_s), s	5.7	4.2	3.9	16.2	0.0	26.3	9.5	5.8	5.7	2.8	5.9	6.4
Cycle Q Clear(g_c), s	5.7	4.2	3.9	16.2	0.0	26.3	9.5	5.8	5.7	2.8	5.9	6.4
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		0.67
Lane Grp Cap(c), veh/h	153	886	392	386	0	691	240	1010	418	74	603	286
V/C Ratio(X)	0.79	0.24	0.23	0.90	0.00	0.87	0.85	0.31	0.31	0.78	0.44	0.47
Avail Cap(c_a), veh/h	244	1373	607	492	0	957	294	1529	633	198	1208	572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	38.3	25.6	25.5	32.6	0.0	24.6	36.1	24.9	24.8	40.5	31.3	31.5
Incr Delay (d2), s/veh	3.5	0.1	0.1	14.5	0.0	6.8	14.8	0.3	0.8	6.5	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	1.8	1.5	8.4	0.0	12.2	5.0	2.5	2.1	1.3	2.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	25.7	25.6	47.1	0.0	31.4	50.9	25.2	25.6	47.0	32.2	33.7
LnGrp LOS	D	C	C	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h	430			951			650			456		
Approach Delay, s/veh	30.2			37.1			33.3			34.5		
Approach LOS	C			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	28.3	22.9	26.2	15.9	20.4	11.8	37.3				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	9.5	34.9	23.6	33.0	14.1	30.3	11.7	44.9				
Max Q Clear Time (g_c+I), s	14.8	7.8	18.2	6.2	11.5	8.4	7.7	28.3				
Green Ext Time (p_c), s	0.0	4.5	0.3	1.1	0.1	4.0	0.1	4.0				

Intersection Summary

HCM 6th Ctrl Delay 34.5

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



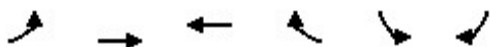
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	37	45	307	11	60	31	513	407	44	682	17
Future Volume (veh/h)	24	37	45	307	11	60	31	513	407	44	682	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	39	47	323	12	63	33	540	428	46	718	18
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	531	259	312	523	87	457	51	1276	557	126	1878	47
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.03	0.36	0.36	0.04	0.37	0.37
Sat Flow, veh/h	1319	770	928	1306	259	1358	1781	3554	1551	3456	5118	128
Grp Volume(v), veh/h	25	0	86	323	0	75	33	540	428	46	477	259
Grp Sat Flow(s), veh/h/ln	1319	0	1697	1306	0	1617	1781	1777	1551	1728	1702	1842
Q Serve(g_s), s	0.7	0.0	2.0	12.8	0.0	1.8	1.0	6.4	13.6	0.7	5.7	5.8
Cycle Q Clear(g_c), s	2.5	0.0	2.0	14.8	0.0	1.8	1.0	6.4	13.6	0.7	5.7	5.8
Prop In Lane	1.00		0.55	1.00		0.84	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	531	0	571	523	0	544	51	1276	557	126	1249	676
V/C Ratio(X)	0.05	0.00	0.15	0.62	0.00	0.14	0.65	0.42	0.77	0.36	0.38	0.38
Avail Cap(c_a), veh/h	840	0	969	810	0	900	128	1327	579	248	1249	676
HCM Platoon Ratio	1.00	1.00	1.00	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	13.7	0.0	12.9	18.1	0.0	12.8	26.8	13.5	15.8	26.2	13.0	13.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	5.0	0.4	6.8	0.7	0.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.0	0.7	3.6	0.0	0.6	0.5	2.2	5.1	0.3	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.7	0.0	12.9	18.5	0.0	12.9	31.7	13.9	22.6	26.8	13.2	13.3
LnGrp LOS	B	A	B	B	A	B	C	B	C	C	B	B
Approach Vol, veh/h	111			398			1001			782		
Approach Delay, s/veh	13.1			17.4			18.2			14.0		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	25.7		23.5	6.0	26.1		23.5				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	1.0	* 21		* 32	4.0	20.1		* 31				
Max Q Clear Time (g_c+1/2), s	12.7	15.6		4.5	3.0	7.8		16.8				
Green Ext Time (p_c), s	0.0	3.3		0.3	0.0	3.7		0.8				

Intersection Summary

HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↘	↘	↘
Traffic Volume (veh/h)	1484	1658	2197	61	0	60
Future Volume (veh/h)	1484	1658	2197	61	0	60
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1562	1745	2313	0	0	63
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1594	3114	2747		67	563
Arrive On Green	0.32	0.90	0.55	0.00	0.00	0.04
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1562	1745	2313	0	0	63
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	46.2	15.5	58.3	0.0	0.0	4.0
Cycle Q Clear(g_c), s	46.2	15.5	58.3	0.0	0.0	4.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1594	3114	2747		67	563
V/C Ratio(X)	0.98	0.56	0.84		0.00	0.11
Avail Cap(c_a), veh/h	1594	3114	2747		202	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.44	0.00	0.00	1.00
Uniform Delay (d), s/veh	50.7	1.6	28.2	0.0	0.0	32.5
Incr Delay (d2), s/veh	17.8	0.7	1.5	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.4	1.6	22.2	0.0	0.0	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	68.6	2.3	29.7	0.0	0.0	32.6
LnGrp LOS	E	A	C		A	C
Approach Vol, veh/h		3307	2313	A	63	
Approach Delay, s/veh		33.6	29.7		32.6	
Approach LOS		C	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		140.0		10.0	52.0	88.0
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	47.6	* 72
Max Q Clear Time (g_c+I1), s		17.5		6.0	48.2	60.3
Green Ext Time (p_c), s		81.4		0.1	0.0	11.1
Intersection Summary						
HCM 6th Ctrl Delay			32.0			
HCM 6th LOS			C			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	589	995	81	101	965	64	93	268	74	76	147	677
Future Volume (veh/h)	589	995	81	101	965	64	93	268	74	76	147	677
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.94	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	601	1015	83	103	985	65	95	273	76	78	150	691
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	612	1311	107	188	1116	74	109	349	278	214	870	1124
Arrive On Green	0.18	0.39	0.39	0.11	0.33	0.33	0.06	0.19	0.19	0.12	0.24	0.24
Sat Flow, veh/h	3456	3325	272	1781	3379	223	1781	1870	1490	1781	3554	2571
Grp Volume(v), veh/h	601	542	556	103	518	532	95	273	76	78	150	691
Grp Sat Flow(s),veh/h/ln	1728	1777	1820	1781	1777	1825	1781	1870	1490	1781	1777	1286
Q Serve(g_s), s	18.2	27.9	28.0	5.8	28.9	28.9	5.6	14.6	4.6	4.2	3.5	14.9
Cycle Q Clear(g_c), s	18.2	27.9	28.0	5.8	28.9	28.9	5.6	14.6	4.6	4.2	3.5	14.9
Prop In Lane	1.00		0.15	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	612	701	718	188	587	603	109	349	278	214	870	1124
V/C Ratio(X)	0.98	0.77	0.77	0.55	0.88	0.88	0.87	0.78	0.27	0.36	0.17	0.61
Avail Cap(c_a), veh/h	612	701	718	188	587	603	109	451	359	214	981	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	0.80	0.80	0.80	0.99	0.99	0.99	0.88	0.88	0.88
Uniform Delay (d), s/veh	43.0	27.7	27.7	44.6	33.2	33.2	48.9	40.7	36.6	42.5	31.3	11.4
Incr Delay (d2), s/veh	31.7	8.1	8.0	8.9	14.5	14.2	47.8	6.9	0.6	0.3	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 BackOfQ(50%),veh/ln	0.2	12.8	13.0	3.0	14.2	14.5	3.9	7.3	1.7	1.9	1.5	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.7	35.9	35.7	53.5	47.7	47.4	96.7	47.6	37.2	42.8	31.4	12.3
LnGrp LOS	E	D	D	D	D	D	F	D	D	D	C	B
Approach Vol, veh/h	1699			1153			444			919		
Approach Delay, s/veh	49.6			48.1			56.3			18.0		
Approach LOS	D			D			E			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	24.5	16.9	46.6	10.8	30.7	23.0	40.5				
Change Period (Y+Rc), s	4.4	4.9	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	10.2	25.3	9.2	* 41	6.4	29.0	18.6	31.4				
Max Q Clear Time (g_c+16.2), s	16.6	16.6	7.8	30.0	7.6	16.9	20.2	30.9				
Green Ext Time (p_c), s	0.0	1.3	0.0	6.5	0.0	4.8	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	966	100	38	151	0	0	0	0	136	170	983
Future Volume (veh/h)	0	966	100	38	151	0	0	0	0	136	170	983
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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1050	109	41	164	0				148	185	1068
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1312	136	64	1668	0				366	1259	1219
Arrive On Green	0.00	0.40	0.40	0.04	0.47	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3341	337	1781	3647	0				813	2793	2705
Grp Volume(v), veh/h	0	574	585	41	164	0				333	0	1068
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1830	1777	1353
Q Serve(g_s), s	0.0	42.7	42.8	3.4	3.9	0.0				18.3	0.0	53.8
Cycle Q Clear(g_c), s	0.0	42.7	42.8	3.4	3.9	0.0				18.3	0.0	53.8
Prop In Lane	0.00		0.19	1.00		0.00				0.44		1.00
Lane Grp Cap(c), veh/h	0	718	730	64	1668	0				825	801	1219
V/C Ratio(X)	0.00	0.80	0.80	0.64	0.10	0.00				0.40	0.00	0.88
Avail Cap(c_a), veh/h	0	718	730	90	1668	0				825	801	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.72	0.72	0.63	0.63	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	39.4	39.4	71.3	22.1	0.0				27.7	0.0	37.4
Incr Delay (d2), s/veh	0.0	6.7	6.6	2.5	0.1	0.0				1.5	0.0	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.6	20.0	1.6	1.6	0.0				8.6	0.0	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.1	46.0	73.8	22.2	0.0				29.1	0.0	46.4
LnGrp LOS	A	D	D	E	C	A				C	A	D
Approach Vol, veh/h		1159			205						1401	
Approach Delay, s/veh		46.1			32.5						42.3	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.8	67.2		73.0		77.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.6	* 60		67.6		70.4						
Max Q Clear Time (g_c+I1), s	5.4	44.8		55.8		5.9						
Green Ext Time (p_c), s	0.0	2.3		2.0		0.4						
Intersection Summary												
HCM 6th Ctrl Delay			43.1									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2166	87	0	0	0	0	0	0	146	236	0
Future Volume (veh/h)	0	2166	87	0	0	0	0	0	0	146	236	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2210	89							149	241	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3436	138							406	811	0
Arrive On Green	0.00	0.23	0.23							0.08	0.08	0.00
Sat Flow, veh/h	0	5201	202							1781	3647	0
Grp Volume(v), veh/h	0	1491	808							149	241	0
Grp Sat Flow(s),veh/h/ln	0	1702	1830							1781	1777	0
Q Serve(g_s), s	0.0	43.6	44.0							8.7	7.1	0.0
Cycle Q Clear(g_c), s	0.0	43.6	44.0							8.7	7.1	0.0
Prop In Lane	0.00		0.11							1.00		0.00
Lane Grp Cap(c), veh/h	0	2324	1249							406	811	0
V/C Ratio(X)	0.00	0.64	0.65							0.37	0.30	0.00
Avail Cap(c_a), veh/h	0	2324	1249							406	811	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	30.4	30.6							43.3	42.5	0.0
Incr Delay (d2), s/veh	0.0	1.4	2.6							2.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.2	22.4							4.4	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.8	33.2							45.8	43.5	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		2299									390	
Approach Delay, s/veh		32.3									44.4	
Approach LOS		C									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		80.0	30.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		75.1	25.1									
Max Q Clear Time (g_c+l1), s		46.0	10.7									
Green Ext Time (p_c), s		21.7	1.7									
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	126	2006	0	0	0	0	0	75	29	0	0	0
Future Volume (veh/h)	126	2006	0	0	0	0	0	75	29	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	133	2112	0				0	79	31			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	208	3526	0				0	509	190			
Arrive On Green	0.23	0.23	0.00				0.00	0.20	0.20			
Sat Flow, veh/h	293	5135	0				0	2627	944			
Grp Volume(v), veh/h	842	1403	0				0	54	56			
Grp Sat Flow(s),veh/h/ln	1856	1702	0				0	1777	1700			
Q Serve(g_s), s	45.0	40.2	0.0				0.0	2.8	3.0			
Cycle Q Clear(g_c), s	45.0	40.2	0.0				0.0	2.8	3.0			
Prop In Lane	0.16		0.00				0.00		0.56			
Lane Grp Cap(c), veh/h	1318	2417	0				0	357	342			
V/C Ratio(X)	0.64	0.58	0.00				0.00	0.15	0.16			
Avail Cap(c_a), veh/h	1318	2417	0				0	357	342			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	29.4	27.6	0.0				0.0	36.2	36.3			
Incr Delay (d2), s/veh	2.4	1.0	0.0				0.0	0.9	1.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	23.2	18.6	0.0				0.0	1.3	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	28.6	0.0				0.0	37.1	37.3			
LnGrp LOS	C	C	A				A	D	D			
Approach Vol, veh/h		2245						110				
Approach Delay, s/veh		29.8						37.2				
Approach LOS		C						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		83.0						27.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		78.1						22.1				
Max Q Clear Time (g_c+I1), s		47.0						5.0				
Green Ext Time (p_c), s		22.3						0.5				
Intersection Summary												
HCM 6th Ctrl Delay			30.2									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	849	185	460	1225	0	168	43	362	0	32	182
Future Volume (veh/h)	262	849	185	460	1225	0	168	43	362	0	32	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	291	943	206	511	1361	0	187	48	0	0	36	202
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	318	1429	552	1404	3300	0	254	138		0	111	154
Arrive On Green	0.18	0.29	0.29	0.41	0.53	0.00	0.07	0.07	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1519	3456	6537	0	3456	1870	1585	0	1870	2606
Grp Volume(v), veh/h	291	943	206	511	1361	0	187	48	0	0	36	202
Grp Sat Flow(s), veh/h/ln	1781	1662	1519	1728	1570	0	1728	1870	1585	0	1870	1303
Q Serve(g_s), s	19.2	20.0	12.0	12.4	15.8	0.0	6.4	2.9	0.0	0.0	2.2	7.1
Cycle Q Clear(g_c), s	19.2	20.0	12.0	12.4	15.8	0.0	6.4	2.9	0.0	0.0	2.2	7.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	318	1429	552	1404	3300	0	254	138		0	111	154
V/C Ratio(X)	0.91	0.66	0.37	0.36	0.41	0.00	0.74	0.35		0.00	0.33	1.31
Avail Cap(c_a), veh/h	380	1429	552	1404	3300	0	1066	577		0	111	154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.92	0.92	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	37.7	28.4	24.8	17.3	0.0	54.4	52.8	0.0	0.0	54.2	56.5
Incr Delay (d2), s/veh	22.0	2.4	1.9	0.0	0.0	0.0	1.4	0.5	0.0	0.0	1.7	178.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ft	0.2	8.2	5.1	4.9	5.3	0.0	2.8	1.4	0.0	0.0	1.1	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	70.4	40.1	30.3	24.8	17.3	0.0	55.9	53.4	0.0	0.0	55.8	234.7
LnGrp LOS	E	D	C	C	B	A	E	D		A	E	F
Approach Vol, veh/h	1440			1872			235			A	238	
Approach Delay, s/veh	44.8			19.3			55.4				207.6	
Approach LOS	D			B			E				F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	54.2	40.1		12.0	25.8	68.4		13.7				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	21.6	* 34		7.1	25.6	30.7		37.0				
Max Q Clear Time (g_c+1/4), s	14.4	22.0		9.1	21.2	17.8		8.4				
Green Ext Time (p_c), s	0.7	8.2		0.0	0.2	10.8		0.5				

Intersection Summary

HCM 6th Ctrl Delay 43.1

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	600	0	0	1212	828
Future Volume (veh/h)	0	600	0	0	1212	828
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	638			1289	881
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2901	1347
Arrive On Green	0.00	0.00			0.85	0.85
Sat Flow, veh/h	0				3572	1580
Grp Volume(v), veh/h	0.0				1289	881
Grp Sat Flow(s),veh/h/ln					1702	1580
Q Serve(g_s), s					2.7	5.7
Cycle Q Clear(g_c), s					2.7	5.7
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2901	1347
V/C Ratio(X)					0.44	0.65
Avail Cap(c_a), veh/h					3524	1636
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.8
Incr Delay (d2), s/veh					0.1	0.7
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	1.4
LnGrp LOS					A	A
Approach Vol, veh/h					2170	
Approach Delay, s/veh					1.0	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					30.4	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					31.5	
Max Q Clear Time (g_c+l1), s					7.7	
Green Ext Time (p_c), s					18.3	
Intersection Summary						
HCM 6th Ctrl Delay			1.0			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	131	226	100	286	369	85	167	447	72	159	1052	61
Future Volume (veh/h)	131	226	100	286	369	85	167	447	72	159	1052	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	240	106	304	393	90	178	476	77	169	1119	65
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	802	357	307	445	102	196	1038	461	202	1457	85
Arrive On Green	0.10	0.23	0.23	0.17	0.30	0.30	0.11	0.29	0.29	0.11	0.30	0.30
Sat Flow, veh/h	1781	3554	1581	1781	1472	337	1781	3554	1579	1781	4934	286
Grp Volume(v), veh/h	139	240	106	304	0	483	178	476	77	169	772	412
Grp Sat Flow(s), veh/h/ln	1781	1777	1581	1781	0	1809	1781	1777	1579	1781	1702	1817
Q Serve(g_s), s	7.4	5.4	5.4	16.4	0.0	24.5	9.5	10.6	3.5	9.0	19.9	19.9
Cycle Q Clear(g_c), s	7.4	5.4	5.4	16.4	0.0	24.5	9.5	10.6	3.5	9.0	19.9	19.9
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	170	802	357	307	0	547	196	1038	461	202	1005	536
V/C Ratio(X)	0.82	0.30	0.30	0.99	0.00	0.88	0.91	0.46	0.17	0.84	0.77	0.77
Avail Cap(c_a), veh/h	229	1216	541	307	0	698	196	1038	461	262	1087	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	42.8	31.0	31.0	39.8	0.0	32.0	42.4	27.9	25.4	41.9	31.0	31.0
Incr Delay (d2), s/veh	11.5	0.1	0.2	48.8	0.0	10.7	39.1	0.6	0.3	13.5	3.7	6.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.8	2.3	2.1	11.3	0.0	12.2	6.2	4.4	1.4	4.6	8.4	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.3	31.1	31.2	88.7	0.0	42.7	81.5	28.5	25.7	55.4	34.6	37.7
LnGrp LOS	D	C	C	F	A	D	F	C	C	E	C	D
Approach Vol, veh/h		485			787			731			1353	
Approach Delay, s/veh		37.8			60.5			41.1			38.2	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	33.5	21.0	26.7	15.0	33.8	13.6	34.0					
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	14.2	27.2	16.6	33.0	10.6	30.8	12.4	37.2				
Max Q Clear Time (g_c+I1), s	11.0	12.6	18.4	7.4	11.5	21.9	9.4	26.5				
Green Ext Time (p_c), s	0.1	4.6	0.0	1.3	0.0	6.3	0.1	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			44.0									
HCM 6th LOS			D									

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



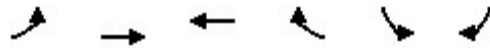
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	54	52	264	3	10	21	587	473	216	1331	22
Future Volume (veh/h)	35	54	52	264	3	10	21	587	473	216	1331	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	63	60	307	3	12	24	683	550	251	1548	26
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	518	281	268	420	104	417	36	1282	567	265	2531	43
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.02	0.36	0.36	0.15	0.49	0.49
Sat Flow, veh/h	1388	877	835	1261	325	1300	1781	3554	1573	1781	5171	87
Grp Volume(v), veh/h	41	0	123	307	0	15	24	683	550	251	1019	555
Grp Sat Flow(s), veh/h/ln	1388	0	1713	1261	0	1625	1781	1777	1573	1781	1702	1854
Q Serve(g_s), s	1.8	0.0	4.6	20.7	0.0	0.6	1.2	13.4	30.2	12.3	19.2	19.2
Cycle Q Clear(g_c), s	2.4	0.0	4.6	25.3	0.0	0.6	1.2	13.4	30.2	12.3	19.2	19.2
Prop In Lane	1.00		0.49	1.00		0.80	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	518	0	549	420	0	521	36	1282	567	265	1666	907
V/C Ratio(X)	0.08	0.00	0.22	0.73	0.00	0.03	0.67	0.53	0.97	0.95	0.61	0.61
Avail Cap(c_a), veh/h	575	0	620	460	0	573	111	1282	567	265	1666	907
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	21.8	31.1	0.0	20.5	42.8	22.2	27.6	37.0	16.3	16.3
Incr Delay (d2), s/veh	0.0	0.0	0.1	4.3	0.0	0.0	7.7	0.7	30.3	40.1	0.7	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.0	1.9	6.7	0.0	0.2	0.6	5.4	15.3	8.1	6.9	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.3	0.0	21.9	35.5	0.0	20.5	50.4	22.9	57.9	77.2	17.0	17.6
LnGrp LOS	C	A	C	D	A	C	D	C	E	E	B	B
Approach Vol, veh/h	164			322			1257			1825		
Approach Delay, s/veh	21.8			34.8			38.7			25.5		
Approach LOS	C			C			D			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	37.4		33.0	6.2	48.7		33.0				
Change Period (Y+Rc), s	4.4	* 5.7		* 4.8	4.4	5.7		* 4.8				
Max Green Setting (Gmax), s	32	* 32		* 32	5.5	38.6		* 31				
Max Q Clear Time (g_c+1/4), s	14.3	32.2		6.6	3.2	21.2		27.3				
Green Ext Time (p_c), s	0.0	0.0		0.5	0.0	10.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↗	↖	↗
Traffic Volume (veh/h)	1767	2346	2291	137	0	41
Future Volume (veh/h)	1767	2346	2291	137	0	41
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1841	2444	2386	0	0	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1728	3155	2672		46	587
Arrive On Green	0.34	0.91	0.54	0.00	0.00	0.03
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1841	2444	2386	0	0	43
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	51.6	32.4	63.9	0.0	0.0	2.6
Cycle Q Clear(g_c), s	51.6	32.4	63.9	0.0	0.0	2.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1728	3155	2672		46	587
V/C Ratio(X)	1.07	0.77	0.89		0.00	0.07
Avail Cap(c_a), veh/h	1728	3155	2672		202	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.00	0.00	1.00
Uniform Delay (d), s/veh	49.2	2.1	31.0	0.0	0.0	30.6
Incr Delay (d2), s/veh	41.5	1.9	2.4	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.5	1.8	24.7	0.0	0.0	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	90.7	4.0	33.4	0.0	0.0	30.6
LnGrp LOS	F	A	C		A	C
Approach Vol, veh/h		4285	2386	A	43	
Approach Delay, s/veh		41.2	33.4		30.6	
Approach LOS		D	C		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		141.7		8.3	56.0	85.7
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	51.6	* 68
Max Q Clear Time (g_c+I1), s		34.4		4.6	53.6	65.9
Green Ext Time (p_c), s		86.4		0.1	0.0	1.6

Intersection Summary

HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↓		↖↗	↑↓		↖↗	↑	↖↗	↖↗	↑↑	↖↗
Traffic Volume (veh/h)	593	1553	100	191	790	100	104	307	146	206	782	731
Future Volume (veh/h)	593	1553	100	191	790	100	104	307	146	206	782	731
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	690	1806	116	222	919	116	121	357	170	240	909	850
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	705	2540	161	185	2061	260	102	325	273	197	820	1206
Arrive On Green	0.20	0.75	0.75	0.21	1.00	1.00	0.06	0.17	0.17	0.11	0.23	0.23
Sat Flow, veh/h	3456	3390	215	1781	3174	401	1781	1870	1571	1781	3554	2759
Grp Volume(v), veh/h	690	937	985	222	514	521	121	357	170	240	909	850
Grp Sat Flow(s),veh/h/ln	1728	1777	1828	1781	1777	1798	1781	1870	1571	1781	1777	1380
Q Serve(g_s), s	29.8	41.9	43.9	15.6	0.0	0.0	8.6	26.1	17.0	16.6	34.6	34.6
Cycle Q Clear(g_c), s	29.8	41.9	43.9	15.6	0.0	0.0	8.6	26.1	17.0	16.6	34.6	34.6
Prop In Lane	1.00		0.12	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	705	1331	1370	185	1154	1167	102	325	273	197	820	1206
V/C Ratio(X)	0.98	0.70	0.72	1.20	0.45	0.45	1.18	1.10	0.62	1.22	1.11	0.71
Avail Cap(c_a), veh/h	705	1331	1370	185	1154	1167	102	325	273	197	820	1206
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	0.98	0.98	0.98	0.75	0.75	0.75
Uniform Delay (d), s/veh	59.4	10.0	10.2	59.4	0.0	0.0	70.7	62.0	73.0	66.7	57.7	34.6
Incr Delay (d2), s/veh	28.5	3.1	3.3	122.3	1.0	1.0	146.2	78.0	4.4	127.3	62.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	15.2	16.4	12.4	0.3	0.3	8.1	19.4	7.1	14.5	22.5	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.9	13.1	13.5	181.7	1.0	1.0	216.9	139.9	77.5	194.0	119.9	36.2
LnGrp LOS	F	B	B	F	A	A	F	F	E	F	F	D
Approach Vol, veh/h	2612			1257			648			1999		
Approach Delay, s/veh	33.0			32.9			137.9			93.2		
Approach LOS	C			C			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.6	31.0	20.0	119.4	13.0	39.6	35.0	104.4				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	* 5.8	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	16.6	* 26	15.6	* 73	8.6	34.0	30.6	57.2				
Max Q Clear Time (g_c+T1), s	119.6	28.1	17.6	45.9	10.6	36.6	31.8	2.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	21.2	0.0	0.0	0.0	6.7				

Intersection Summary

HCM 6th Ctrl Delay	61.9
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	1667	161	39	187	0	0	0	0	299	690	922
Future Volume (veh/h)	0	1667	161	39	187	0	0	0	0	299	690	922
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1773	171	41	199	0				318	734	981
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2912	276	55	3369	0				366	919	982
Arrive On Green	0.00	1.00	1.00	0.03	0.95	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	3373	311	1781	3647	0				1025	2571	2747
Grp Volume(v), veh/h	0	947	997	41	199	0				564	488	981
Grp Sat Flow(s),veh/h/ln	0	1777	1814	1781	1777	0				1819	1777	1373
Q Serve(g_s), s	0.0	0.0	0.0	3.4	0.5	0.0				43.3	36.5	53.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.4	0.5	0.0				43.3	36.5	53.6
Prop In Lane	0.00		0.17	1.00		0.00				0.56		1.00
Lane Grp Cap(c), veh/h	0	1578	1611	55	3369	0				650	635	982
V/C Ratio(X)	0.00	0.60	0.62	0.75	0.06	0.00				0.87	0.77	1.00
Avail Cap(c_a), veh/h	0	1578	1611	55	3369	0				650	635	982
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.50	0.50	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	72.1	0.2	0.0				44.9	42.7	48.2
Incr Delay (d2), s/veh	0.0	0.2	0.2	22.4	0.0	0.0				14.6	8.7	28.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	1.9	0.0	0.0				22.4	17.7	22.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.2	94.5	0.2	0.0				59.5	51.4	76.8
LnGrp LOS	A	A	A	F	A	A				E	D	E
Approach Vol, veh/h		1944			240						2033	
Approach Delay, s/veh		0.2			16.3						65.9	
Approach LOS		A			B						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	141.5			59.0		150.5						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	11.6	* 77		53.6		84.4						
Max Q Clear Time (g_c+15), s	15.4	2.0		55.6		2.5						
Green Ext Time (p_c), s	0.0	5.7		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2985	75	0	0	0	0	0	0	345	409	0
Future Volume (veh/h)	0	2985	75	0	0	0	0	0	0	345	409	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3245	82							375	445	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3496	88							406	811	0
Arrive On Green	0.00	0.23	0.23							0.08	0.08	0.00
Sat Flow, veh/h	0	5289	128							1781	3647	0
Grp Volume(v), veh/h	0	2147	1180							375	445	0
Grp Sat Flow(s),veh/h/ln	0	1702	1845							1781	1777	0
Q Serve(g_s), s	0.0	67.9	69.1							23.0	13.3	0.0
Cycle Q Clear(g_c), s	0.0	67.9	69.1							23.0	13.3	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	2324	1260							406	811	0
V/C Ratio(X)	0.00	0.92	0.94							0.92	0.55	0.00
Avail Cap(c_a), veh/h	0	2324	1260							406	811	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	39.8	40.3							49.9	45.4	0.0
Incr Delay (d2), s/veh	0.0	7.7	14.1							28.9	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	33.3	38.9							14.3	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	47.5	54.4							78.8	48.1	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		3327									820	
Approach Delay, s/veh		49.9									62.1	
Approach LOS		D									E	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		80.0	30.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		75.1	25.1									
Max Q Clear Time (g_c+l1), s		71.1	25.0									
Green Ext Time (p_c), s		4.0	0.0									
Intersection Summary												
HCM 6th Ctrl Delay			52.3									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2030 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	164	2908	0	0	0	0	0	150	34	0	0	0
Future Volume (veh/h)	164	2908	0	0	0	0	0	150	34	0	0	0
Initial Q (Qb), veh	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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	193	3421	0				0	176	40			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	194	3676	0				0	507	113			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	263	5166	0				0	2983	642			
Grp Volume(v), veh/h	1361	2253	0				0	107	109			
Grp Sat Flow(s),veh/h/ln	1857	1702	0				0	1777	1755			
Q Serve(g_s), s	80.5	70.6	0.0				0.0	5.8	6.0			
Cycle Q Clear(g_c), s	80.5	70.6	0.0				0.0	5.8	6.0			
Prop In Lane	0.14		0.00				0.00		0.37			
Lane Grp Cap(c), veh/h	1366	2504	0				0	312	308			
V/C Ratio(X)	1.00	0.90	0.00				0.00	0.34	0.36			
Avail Cap(c_a), veh/h	1366	2504	0				0	312	308			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.5	37.7	0.0				0.0	39.8	39.9			
Incr Delay (d2), s/veh	23.4	5.7	0.0				0.0	3.0	3.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	48.7	34.0	0.0				0.0	2.8	2.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.9	43.5	0.0				0.0	42.8	43.1			
LnGrp LOS	E	D	A				A	D	D			
Approach Vol, veh/h	3614					216						
Approach Delay, s/veh	51.6					42.9						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	85.8					24.2						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	80.9					19.3						
Max Q Clear Time (g_c+I1), s	82.5					8.0						
Green Ext Time (p_c), s	0.0					0.9						
Intersection Summary												
HCM 6th Ctrl Delay			51.1									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	1443	305	763	1071	0	277	36	695	0	28	156
Future Volume (veh/h)	205	1443	305	763	1071	0	277	36	695	0	28	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	220	1552	328	820	1152	0	298	39	0	0	30	168
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	244	1577	665	1316	3576	0	358	194		0	94	124
Arrive On Green	0.14	0.32	0.32	0.38	0.57	0.00	0.10	0.10	0.00	0.00	0.05	0.05
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2488
Grp Volume(v), veh/h	220	1552	328	820	1152	0	298	39	0	0	30	168
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1244
Q Serve(g_s), s	17.0	43.3	21.2	27.0	13.5	0.0	11.8	2.7	0.0	0.0	2.2	7.0
Cycle Q Clear(g_c), s	17.0	43.3	21.2	27.0	13.5	0.0	11.8	2.7	0.0	0.0	2.2	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	244	1577	665	1316	3576	0	358	194		0	94	124
V/C Ratio(X)	0.90	0.98	0.49	0.62	0.32	0.00	0.83	0.20		0.00	0.32	1.35
Avail Cap(c_a), veh/h	358	1577	665	1316	3576	0	913	494		0	94	124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.61	0.61	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	47.5	29.7	35.2	15.9	0.0	61.6	57.5	0.0	0.0	64.2	66.5
Incr Delay (d2), s/veh	14.6	19.2	2.6	0.1	0.0	0.0	1.2	0.1	0.0	0.0	2.0	201.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	20.1	10.0	11.0	4.7	0.0	5.2	1.3	0.0	0.0	1.1	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.1	66.7	32.3	35.3	15.9	0.0	62.8	57.6	0.0	0.0	66.2	267.8
LnGrp LOS	E	E	C	D	B	A	E	E		A	E	F
Approach Vol, veh/h	2100			1972			337			A	198	
Approach Delay, s/veh	62.1			24.0			62.2			237.2		
Approach LOS	E			C			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	58.7	50.0		11.9	23.6	85.1		19.4				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	31.8	* 44		7.0	28.1	48.3		37.0				
Max Q Clear Time (g_c+29.0), s	29.0	45.3		9.0	19.0	15.5		13.8				
Green Ext Time (p_c), s	0.6	0.0		0.0	0.2	19.8		0.6				

Intersection Summary

HCM 6th Ctrl Delay 53.3

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	722	0	0	2258	554
Future Volume (veh/h)	0	722	0	0	2258	554
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	768			2402	589
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3819	867
Arrive On Green	0.00	0.00			0.92	0.92
Sat Flow, veh/h	0				4329	944
Grp Volume(v), veh/h	0.0				1930	1061
Grp Sat Flow(s),veh/h/ln					1702	1700
Q Serve(g_s), s					5.9	7.5
Cycle Q Clear(g_c), s					5.9	7.5
Prop In Lane						0.56
Lane Grp Cap(c), veh/h					3125	1561
V/C Ratio(X)					0.62	0.68
Avail Cap(c_a), veh/h					3491	1744
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.4	0.5
Incr Delay (d2), s/veh					0.3	0.9
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.7	1.4
LnGrp LOS					A	A
Approach Vol, veh/h					2991	
Approach Delay, s/veh					1.0	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					54.8	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					56.2	
Max Q Clear Time (g_c+I1), s					9.5	
Green Ext Time (p_c), s					40.8	
Intersection Summary						
HCM 6th Ctrl Delay			1.0			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

2035 Conditions

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	230	106	228	203	77	113	150	190	86	130	75
Future Volume (veh/h)	38	230	106	228	203	77	113	150	190	86	130	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	245	113	243	216	82	120	160	202	91	138	80
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1289	665	328	803	631	152	773	485	118	704	304
Arrive On Green	0.03	0.36	0.36	0.10	0.43	0.43	0.09	0.22	0.22	0.07	0.20	0.20
Sat Flow, veh/h	1781	3554	1459	3456	1870	1470	1781	3554	1537	1781	3554	1533
Grp Volume(v), veh/h	40	245	113	243	216	82	120	160	202	91	138	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1459	1728	1870	1470	1781	1777	1537	1781	1777	1533
Q Serve(g_s), s	2.0	4.3	4.2	6.2	6.7	3.0	6.0	3.3	9.4	4.5	2.9	4.0
Cycle Q Clear(g_c), s	2.0	4.3	4.2	6.2	6.7	3.0	6.0	3.3	9.4	4.5	2.9	4.0
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	51	1289	665	328	803	631	152	773	485	118	704	304
V/C Ratio(X)	0.79	0.19	0.17	0.74	0.27	0.13	0.79	0.21	0.42	0.77	0.20	0.26
Avail Cap(c_a), veh/h	591	1571	780	1146	827	650	591	1571	830	591	1571	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.7	19.7	14.9	39.9	16.7	15.6	40.6	29.0	24.6	41.6	30.3	30.7
Incr Delay (d2), s/veh	9.7	0.1	0.1	1.2	0.1	0.0	3.4	0.1	0.6	4.0	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 BackOfQ(50%),veh/ln	1.0	1.7	1.4	2.7	2.8	1.0	2.7	1.4	3.4	2.1	1.2	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.4	19.8	15.1	41.1	16.7	15.6	44.0	29.1	25.2	45.6	30.3	30.9
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		398			541			482			309	
Approach Delay, s/veh		21.9			27.5			31.2			35.0	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.0	38.7	13.1	24.6	8.0	44.8	11.4	26.4				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	8.2	6.3	8.0	6.0	4.0	8.7	6.5	11.4				
Green Ext Time (p_c), s	0.4	2.6	0.1	0.7	0.0	1.1	0.1	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	13	0	7	23	0	39	78	352	26	72	337	41
Future Volume (veh/h)	13	0	7	23	0	39	78	352	26	72	337	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	14	0	8	25	0	42	85	383	28	78	366	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	36	95	464	0	373	116	1551	112	110	1455	175
Arrive On Green	0.18	0.00	0.18	0.18	0.00	0.18	0.07	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	731	202	533	1397	0	1548	1781	4848	349	1781	4602	552
Grp Volume(v), veh/h	22	0	0	25	0	42	85	267	144	78	268	143
Grp Sat Flow(s), veh/h/ln	1466	0	0	1397	0	1548	1781	1702	1793	1781	1702	1750
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.7	1.6	1.9	2.0	1.4	2.0	2.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.4	0.0	0.7	1.6	1.9	2.0	1.4	2.0	2.0
Prop In Lane	0.64		0.36	1.00		1.00	1.00		0.19	1.00		0.32
Lane Grp Cap(c), veh/h	437	0	0	464	0	373	116	1089	574	110	1076	553
V/C Ratio(X)	0.05	0.00	0.00	0.05	0.00	0.11	0.73	0.25	0.25	0.71	0.25	0.26
Avail Cap(c_a), veh/h	1872	0	0	1868	0	1953	1602	6121	3224	1602	6121	3146
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	11.4	0.0	9.9	15.3	8.4	8.4	15.4	8.5	8.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.2	0.3	3.1	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.1	0.0	0.2	0.6	0.5	0.6	0.6	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	0.0	0.0	11.5	0.0	10.0	18.6	8.5	8.7	18.5	8.6	8.8
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h	22			67			496			489		
Approach Delay, s/veh	11.4			10.5			10.3			10.2		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.5	16.1		10.8	6.6	16.0		10.8				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.4	4.0		2.4	3.6	4.0		2.7				
Green Ext Time (p_c), s	0.1	4.0		0.1	0.1	3.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay 10.3

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	14	40	44	56	10	470	661	117	37	479	215
Future Volume (veh/h)	22	14	40	44	56	10	470	661	117	37	479	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.73	1.00		0.73	1.00		0.94	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	15	43	47	60	11	505	711	126	40	515	231
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	442	272	61	447	276	426	1826	766	52	722	322
Arrive On Green	0.03	0.24	0.24	0.03	0.24	0.24	0.24	0.51	0.51	0.03	0.31	0.31
Sat Flow, veh/h	1781	1870	1151	1781	1870	1155	1781	3554	1491	1781	2318	1033
Grp Volume(v), veh/h	24	15	43	47	60	11	505	711	126	40	394	352
Grp Sat Flow(s), veh/h/ln	1781	1870	1151	1781	1870	1155	1781	1777	1491	1781	1777	1573
Q Serve(g_s), s	1.7	0.8	3.7	3.3	3.2	0.9	30.0	15.3	5.6	2.8	24.6	24.9
Cycle Q Clear(g_c), s	1.7	0.8	3.7	3.3	3.2	0.9	30.0	15.3	5.6	2.8	24.6	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	56	442	272	61	447	276	426	1826	766	52	554	490
V/C Ratio(X)	0.43	0.03	0.16	0.77	0.13	0.04	1.19	0.39	0.16	0.78	0.71	0.72
Avail Cap(c_a), veh/h	426	447	275	426	447	276	426	1826	766	426	850	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	36.9	38.0	60.1	37.5	36.7	47.7	18.5	16.2	60.5	38.2	38.3
Incr Delay (d2), s/veh	1.9	0.0	0.1	7.5	0.1	0.0	105.0	0.2	0.1	8.9	4.6	5.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	0.4	1.1	1.6	1.5	0.3	25.6	6.3	2.0	1.4	11.4	10.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.5	36.9	38.1	67.5	37.6	36.7	152.7	18.7	16.3	69.4	42.8	43.6
LnGrp LOS	E	D	D	E	D	D	F	B	B	E	D	D
Approach Vol, veh/h	82				118				1342			
Approach Delay, s/veh	44.7				49.4				68.9			
Approach LOS	D				D				E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	73.2	8.7	34.6	34.4	47.8	8.4	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.8	17.3	5.3	5.7	32.0	26.9	3.7	5.2				
Green Ext Time (p_c), s	0.0	8.2	0.0	0.1	0.0	12.2	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 58.8

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	219	29	200	151	0	0	0	0	190	35	54
Future Volume (veh/h)	0	219	29	200	151	0	0	0	0	190	35	54
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	241	32	220	166	0				236	0	59
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	255	509	224	406	776	0				915	0	627
Arrive On Green	0.00	0.14	0.14	0.23	0.23	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1781	3554	1563	1781	3572	0				3563	0	1556
Grp Volume(v), veh/h	0	241	32	220	166	0				236	0	59
Grp Sat Flow(s), veh/h/ln	1781	1777	1563	1781	1702	0				1781	0	1556
Q Serve(g_s), s	0.0	2.4	0.7	4.2	1.5	0.0				2.1	0.0	0.9
Cycle Q Clear(g_c), s	0.0	2.4	0.7	4.2	1.5	0.0				2.1	0.0	0.9
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	255	509	224	406	776	0				915	0	627
V/C Ratio(X)	0.00	0.47	0.14	0.54	0.21	0.00				0.26	0.00	0.09
Avail Cap(c_a), veh/h	2742	5470	2406	2742	5240	0				3199	0	1624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.3	14.6	13.3	12.2	0.0				11.5	0.0	7.3
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.3	0.2	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 BackOfQ(50%), veh/ln	0.0	0.8	0.2	1.3	0.4	0.0				0.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.6	14.7	14.5	12.4	0.0				11.6	0.0	7.3
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	273			386			295					
Approach Delay, s/veh	15.5			13.6			10.7					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.6			16.2			13.2					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+l1), s	4.4			4.1			6.2					
Green Ext Time (p_c), s	1.0			0.5			2.6					

Intersection Summary

HCM 6th Ctrl Delay 13.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	293	0	0	334	328	55	11	178	18	0	298
Future Volume (veh/h)	103	293	0	0	334	328	55	11	178	18	0	298
Initial Q (Qb), 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		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
Work Zone On Approach	No				No						No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	326	0	0	371	364	61	12	198	20	0	331
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	148	1528	0	0	534	471	298	15	247	23	0	373
Arrive On Green	0.08	0.43	0.00	0.00	0.30	0.30	0.17	0.17	0.17	0.25	0.00	0.25
Sat Flow, veh/h	1781	3647	0	0	1870	1569	1781	89	1476	90	0	1496
Grp Volume(v), veh/h	114	326	0	0	371	364	61	0	210	351	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1569	1781	0	1565	1586	0	0
Q Serve(g_s), s	6.0	5.5	0.0	0.0	17.8	20.4	2.8	0.0	12.4	20.6	0.0	0.0
Cycle Q Clear(g_c), s	6.0	5.5	0.0	0.0	17.8	20.4	2.8	0.0	12.4	20.6	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.94	0.06		0.94
Lane Grp Cap(c), veh/h	148	1528	0	0	534	471	298	0	261	396	0	0
V/C Ratio(X)	0.77	0.21	0.00	0.00	0.69	0.77	0.20	0.00	0.80	0.89	0.00	0.00
Avail Cap(c_a), veh/h	555	2213	0	0	1106	977	739	0	650	658	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.3	17.2	0.0	0.0	29.8	30.7	34.6	0.0	38.6	34.9	0.0	0.0
Incr Delay (d2), s/veh	9.9	0.0	0.0	0.0	2.0	3.3	0.1	0.0	2.2	4.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.1	0.0	0.0	7.4	7.6	1.2	0.0	4.9	8.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	17.3	0.0	0.0	31.8	34.0	34.7	0.0	40.8	39.5	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	D	D	A	A
Approach Vol, veh/h	440				735		271				351	
Approach Delay, s/veh	26.6				32.9		39.4				39.5	
Approach LOS	C				C		D				D	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	45.8		28.0		12.5	33.4	22.5					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+l1), s	7.5		22.6		8.0	22.4	14.4					
Green Ext Time (p_c), s	1.3		1.5		0.3	6.0	1.0					

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	425	149	312	477	0	0	0	0	398	248	202
Future Volume (veh/h)	0	425	149	312	477	0	0	0	0	398	248	202
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	434	152	318	487	0				406	253	206
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1887	838	392	2476	0				665	349	289
Arrive On Green	0.00	0.53	0.53	0.23	1.00	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1547
Grp Volume(v), veh/h	0	434	152	318	487	0				406	253	206
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1547
Q Serve(g_s), s	0.0	5.5	4.2	7.3	0.0	0.0				8.8	10.7	10.5
Cycle Q Clear(g_c), s	0.0	5.5	4.2	7.3	0.0	0.0				8.8	10.7	10.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1887	838	392	2476	0				665	349	289
V/C Ratio(X)	0.00	0.23	0.18	0.81	0.20	0.00				0.61	0.72	0.71
Avail Cap(c_a), veh/h	0	1887	838	518	2476	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.94	0.94	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	10.2	31.6	0.0	0.0				31.4	32.1	32.1
Incr Delay (d2), s/veh	0.0	0.3	0.5	5.1	0.2	0.0				0.3	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	1.4	2.9	0.1	0.0				3.7	4.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.8	10.7	36.7	0.2	0.0				31.7	33.2	33.3
LnGrp LOS	A	B	B	D	A	A				C	C	C
Approach Vol, veh/h		586			805						865	
Approach Delay, s/veh		10.8			14.6						32.5	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.9	49.5		20.6		63.4						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	2.6	25.1		32.1		42.1						
Max Q Clear Time (g_c+I), s	19.3	7.5		12.7		2.0						
Green Ext Time (p_c), s	0.2	3.4		2.1		3.6						

Intersection Summary

HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	246	587	0	0	636	579	146	267	23	0	0	0
Future Volume (veh/h)	246	587	0	0	636	579	146	267	23	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	248	593	0	0	642	585	147	270	23			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1219	2650	0	0	1189	519	227	463	39			
Arrive On Green	0.71	1.00	0.00	0.00	0.33	0.33	0.14	0.14	0.14			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1651	3363	285			
Grp Volume(v), veh/h	248	593	0	0	642	585	159	135	146			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1553	1788	1702	1809			
Q Serve(g_s), s	2.1	0.0	0.0	0.0	12.3	28.1	7.1	6.2	6.3			
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.0	12.3	28.1	7.1	6.2	6.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.92		0.16			
Lane Grp Cap(c), veh/h	1219	2650	0	0	1189	519	246	234	249			
V/C Ratio(X)	0.20	0.22	0.00	0.00	0.54	1.13	0.65	0.58	0.59			
Avail Cap(c_a), veh/h	1219	2650	0	0	1189	519	598	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.93	0.93	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.3	0.0	0.0	0.0	22.7	28.0	34.3	33.9	34.0			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.8	79.0	1.1	0.8	0.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.0	0.0	5.0	20.7	3.1	2.6	2.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.4	0.2	0.0	0.0	24.5	107.0	35.4	34.8	34.8			
LnGrp LOS	A	A	A	A	C	F	D	C	C			
Approach Vol, veh/h	841			1227			440					
Approach Delay, s/veh	2.6			63.8			35.0					
Approach LOS	A			E			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.5			34.5			33.0			16.5		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			4.1			30.1			9.1		
Green Ext Time (p_c), s	5.0			0.5			0.0			1.6		

Intersection Summary

HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					←		←	←				
Traffic Volume (veh/h)	0	0	0	0	17	46	12	1243	20	0	0	0
Future Volume (veh/h)	0	0	0	0	17	46	12	1243	20	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	59	15	1594	26			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	82	85	3539	57			
Arrive On Green				0.00	0.07	0.07	0.71	0.71	0.71			
Sat Flow, veh/h				0	447	1198	14	5004	81			
Grp Volume(v), veh/h				0	0	81	599	496	540			
Grp Sat Flow(s),veh/h/ln				0	0	1644	1866	1549	1685			
Q Serve(g_s), s				0.0	0.0	2.4	0.0	6.8	6.8			
Cycle Q Clear(g_c), s				0.0	0.0	2.4	6.8	6.8	6.8			
Prop In Lane				0.00		0.73	0.03		0.05			
Lane Grp Cap(c), veh/h				0	0	112	1394	1095	1191			
V/C Ratio(X)				0.00	0.00	0.72	0.43	0.45	0.45			
Avail Cap(c_a), veh/h				0	0	1332	2337	1882	2047			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	22.6	3.1	3.1	3.1			
Incr Delay (d2), s/veh				0.0	0.0	3.3	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	1.0	1.1	1.0	1.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	25.8	3.4	3.6	3.5			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					81			1635				
Approach Delay, s/veh					25.8			3.5				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.5						8.9				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+l1), s		8.8						4.4				
Green Ext Time (p_c), s		26.1						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.5									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	166	72	419	611	108	181	359	75	106	320	111
Future Volume (veh/h)	120	166	72	419	611	108	181	359	75	106	320	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	178	77	451	657	116	195	386	81	114	344	119
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	512	431	479	703	124	224	871	176	141	603	196
Arrive On Green	0.09	0.27	0.27	0.27	0.45	0.45	0.13	0.21	0.21	0.08	0.16	0.16
Sat Flow, veh/h	1781	1870	1576	1781	1547	273	1781	4234	856	1781	3778	1228
Grp Volume(v), veh/h	129	178	77	451	0	773	195	307	160	114	308	155
Grp Sat Flow(s),veh/h/ln	1781	1870	1576	1781	0	1820	1781	1702	1686	1781	1702	1602
Q Serve(g_s), s	7.8	8.4	4.1	27.3	0.0	44.3	11.8	8.7	9.1	6.9	9.2	9.9
Cycle Q Clear(g_c), s	7.8	8.4	4.1	27.3	0.0	44.3	11.8	8.7	9.1	6.9	9.2	9.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.51	1.00		0.77
Lane Grp Cap(c), veh/h	156	512	431	479	0	828	224	700	347	141	543	256
V/C Ratio(X)	0.83	0.35	0.18	0.94	0.00	0.93	0.87	0.44	0.46	0.81	0.57	0.61
Avail Cap(c_a), veh/h	171	560	472	527	0	909	236	912	452	257	952	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	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	49.4	32.1	30.5	39.4	0.0	28.5	47.3	38.2	38.4	49.9	42.8	43.1
Incr Delay (d2), s/veh	22.9	0.2	0.1	23.5	0.0	15.5	25.8	0.8	1.8	4.1	1.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	3.9	1.6	15.0	0.0	22.4	6.8	3.7	3.9	3.2	3.9	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	32.3	30.6	62.9	0.0	43.9	73.0	39.0	40.1	54.0	44.4	47.2
LnGrp LOS	E	C	C	E	A	D	E	D	D	D	D	D
Approach Vol, veh/h	384			1224			662			577		
Approach Delay, s/veh	45.4			50.9			49.3			47.1		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.1	28.0	34.0	35.0	18.2	22.9	14.1	55.0				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	55.0	29.5	32.6	33.0	14.6	30.8	10.6	55.0				
Max Q Clear Time (g_c+I), s	10.9	11.1	29.3	10.4	13.8	11.9	9.8	46.3				
Green Ext Time (p_c), s	0.1	4.5	0.3	0.8	0.0	4.4	0.0	3.7				

Intersection Summary

HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2035 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖↑					↖↑↑↑		
Traffic Volume (veh/h)	0	100	272	137	332	0	0	0	0	75	1894	783
Future Volume (veh/h)	0	100	272	137	332	0	0	0	0	75	1894	783
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	114	309	156	377	0				85	2152	890
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	414	350	192	431	0				1130	2338	842
Arrive On Green	0.00	0.22	0.22	0.22	0.22	0.00				0.63	0.63	0.63
Sat Flow, veh/h	0	1870	1585	572	2036	0				1781	3686	1327
Grp Volume(v), veh/h	0	114	309	247	286	0				85	1963	1079
Grp Sat Flow(s),veh/h/ln	0	1870	1585	905	1617	0				1781	1702	1609
Q Serve(g_s), s	0.0	4.5	17.0	15.4	15.1	0.0				1.6	44.8	57.1
Cycle Q Clear(g_c), s	0.0	4.5	17.0	19.9	15.1	0.0				1.6	44.8	57.1
Prop In Lane	0.00		1.00	0.63		0.00				1.00		0.83
Lane Grp Cap(c), veh/h	0	414	350	265	358	0				1130	2160	1021
V/C Ratio(X)	0.00	0.28	0.88	0.93	0.80	0.00				0.08	0.91	1.06
Avail Cap(c_a), veh/h	0	414	350	265	358	0				1130	2160	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	29.1	33.9	38.8	33.2	0.0				6.3	14.2	16.5
Incr Delay (d2), s/veh	0.0	0.1	21.4	36.9	11.8	0.0				0.1	6.4	44.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	8.5	8.2	7.0	0.0				0.6	16.4	30.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.2	55.3	75.7	45.0	0.0				6.4	20.6	60.9
LnGrp LOS	A	C	E	E	D	A				A	C	F
Approach Vol, veh/h	423		533			3127						
Approach Delay, s/veh	48.2		59.2			34.1						
Approach LOS	D		E			C						
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	26.6			63.4			26.6					
Change Period (Y+Rc), s	6.7			6.3			6.7					
Max Green Setting (Gmax), s	19.9			57.1			19.9					
Max Q Clear Time (g_c+I1), s	19.0			59.1			21.9					
Green Ext Time (p_c), s	0.1			0.0			0.0					
Intersection Summary												
HCM 6th Ctrl Delay	38.9											
HCM 6th LOS	D											

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2035 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	78	18	85	0	34	23	418	1317	23	0	0	0
Future Volume (veh/h)	78	18	85	0	34	23	418	1317	23	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	0.99		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	82	19	89	0	36	24	440	1386	24			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	296	52	1139	0	148	99	1028	2061	36			
Arrive On Green	0.14	0.14	0.14	0.00	0.14	0.14	0.58	0.58	0.58			
Sat Flow, veh/h	899	363	1568	0	1038	692	1781	3572	62			
Grp Volume(v), veh/h	101	0	89	0	0	60	440	689	721			
Grp Sat Flow(s),veh/h/ln	1262	0	1568	0	0	1729	1781	1777	1857			
Q Serve(g_s), s	2.0	0.0	0.0	0.0	0.0	1.2	5.4	10.4	10.4			
Cycle Q Clear(g_c), s	3.2	0.0	0.0	0.0	0.0	1.2	5.4	10.4	10.4			
Prop In Lane	0.81		1.00	0.00		0.40	1.00		0.03			
Lane Grp Cap(c), veh/h	348	0	1139	0	0	247	1028	1025	1072			
V/C Ratio(X)	0.29	0.00	0.08	0.00	0.00	0.24	0.43	0.67	0.67			
Avail Cap(c_a), veh/h	962	0	1821	0	0	933	1286	1283	1341			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.8	0.0	1.6	0.0	0.0	14.8	4.6	5.7	5.7			
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.2	0.3	1.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.0	0.0	0.4	1.1	2.2	2.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	0.0	1.6	0.0	0.0	15.0	4.9	6.7	6.6			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h	190			60			1850					
Approach Delay, s/veh	9.4			15.0			6.2					
Approach LOS	A			B			A					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	27.0			12.0			12.0					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	28.1			* 23			21.0					
Max Q Clear Time (g_c+I1), s	12.4			5.2			3.2					
Green Ext Time (p_c), s	10.0			0.8			0.1					

Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	56	42	169	7	9	48	558	205	122	719	19
Future Volume (veh/h)	30	56	42	169	7	9	48	558	205	122	719	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	62	46	186	8	10	53	613	225	134	790	21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	475	248	184	396	188	234	74	1997	609	238	2139	57
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.39	0.39	0.07	0.42	0.42
Sat Flow, veh/h	1390	996	739	1282	754	943	1781	5106	1557	3456	5110	136
Grp Volume(v), veh/h	33	0	108	186	0	18	53	613	225	134	526	285
Grp Sat Flow(s),veh/h/ln	1390	0	1734	1282	0	1697	1781	1702	1557	1728	1702	1841
Q Serve(g_s), s	0.9	0.0	2.6	7.0	0.0	0.4	1.5	4.2	5.3	1.9	5.4	5.5
Cycle Q Clear(g_c), s	1.4	0.0	2.6	9.5	0.0	0.4	1.5	4.2	5.3	1.9	5.4	5.5
Prop In Lane	1.00		0.43	1.00		0.56	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	475	0	431	396	0	422	74	1997	609	238	1425	771
V/C Ratio(X)	0.07	0.00	0.25	0.47	0.00	0.04	0.72	0.31	0.37	0.56	0.37	0.37
Avail Cap(c_a), veh/h	1217	0	1356	1079	0	1327	1045	5990	1826	2027	3993	2160
HCM Platoon Ratio	1.00	1.00	1.00	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	15.1	0.0	15.4	19.2	0.0	14.6	24.2	10.8	11.1	23.1	10.2	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	4.8	0.2	0.7	0.8	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.9	1.9	0.0	0.1	0.7	1.3	1.6	0.7	1.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	0.0	15.5	19.5	0.0	14.6	29.1	10.9	11.8	23.8	10.4	10.5
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	141		204			891			945			
Approach Delay, s/veh	15.4		19.1			12.2			12.3			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	25.7	17.5		6.5	27.1	17.5					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	13.9	7.3	4.6		3.5	7.5	11.5					
Green Ext Time (p_c), s	0.2	10.7	0.5		0.1	6.0	0.4					

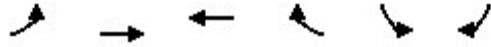
Intersection Summary

HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	4553	11	0	3300	0	5
Future Vol, veh/h	4553	11	0	3300	0	5
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	5003	12	0	3626	0	5
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	2508
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	19
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	19
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		258.7	
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	19	-	-	-		
HCM Lane V/C Ratio	0.289	-	-	-		
HCM Control Delay (s)	258.7	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.8	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↰	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1290	2711	3822	10	7	117
Future Volume (veh/h)	1290	2711	3822	10	7	117
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1466	3081	4343	0	8	133
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	662	4043	2902		178	158
Arrive On Green	0.19	0.81	0.58	0.00	0.10	0.10
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1466	3081	4343	0	8	133
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	22.6	36.1	68.7	0.0	0.5	9.7
Cycle Q Clear(g_c), s	22.6	36.1	68.7	0.0	0.5	9.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	662	4043	2902		178	158
V/C Ratio(X)	2.21	0.76	1.50		0.04	0.84
Avail Cap(c_a), veh/h	662	4043	2902		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	5.5	24.6	0.0	48.0	52.2
Incr Delay (d2), s/veh	551.7	1.4	223.6	0.0	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	60.1	7.6	83.5	0.0	0.2	8.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	599.4	6.9	248.2	0.0	48.0	56.7
LnGrp LOS	F	A	F		D	E
Approach Vol, veh/h		4547	4343	A	141	
Approach Delay, s/veh		197.9	248.2		56.2	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		101.0		17.0	27.0	74.0
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	22.6	* 51
Max Q Clear Time (g_c+I1), s		38.1		11.7	24.6	70.7
Green Ext Time (p_c), s		39.3		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			219.9			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2035 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	373	1018	85	52	1353	60	150	301	75	52	181	672
Future Volume (veh/h)	373	1018	85	52	1353	60	150	301	75	52	181	672
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.94	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	1095	91	56	1455	65	161	324	81	56	195	723
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	1554	129	177	1244	55	185	1002	237	72	934	595
Arrive On Green	0.21	0.47	0.47	0.13	0.48	0.48	0.10	0.25	0.25	0.04	0.18	0.18
Sat Flow, veh/h	1781	3317	275	1781	3464	154	1781	4073	961	1781	5106	1398
Grp Volume(v), veh/h	401	586	600	56	744	776	161	268	137	56	195	723
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1781	1777	1842	1781	1702	1630	1781	1702	1398
Q Serve(g_s), s	30.0	36.6	36.7	4.0	50.3	50.3	12.5	9.0	9.7	4.4	4.5	25.6
Cycle Q Clear(g_c), s	30.0	36.6	36.7	4.0	50.3	50.3	12.5	9.0	9.7	4.4	4.5	25.6
Prop In Lane	1.00		0.15	1.00		0.08	1.00		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	382	833	851	177	638	661	185	838	401	72	934	595
V/C Ratio(X)	1.05	0.70	0.71	0.32	1.17	1.17	0.87	0.32	0.34	0.78	0.21	1.21
Avail Cap(c_a), veh/h	382	833	851	177	638	661	244	838	401	244	934	595
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	0.98	0.98	0.98	0.92	0.92	0.92
Uniform Delay (d), s/veh	55.0	29.5	29.5	56.5	36.6	36.6	61.8	43.2	43.4	66.5	48.6	43.1
Incr Delay (d2), s/veh	59.9	5.0	4.9	3.3	87.0	88.9	18.3	0.2	0.6	6.0	0.1	110.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	16.3	16.7	1.9	34.8	36.4	6.6	3.8	4.0	2.1	1.9	38.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	114.9	34.5	34.4	59.8	123.5	125.5	80.1	43.4	44.0	72.6	48.7	153.5
LnGrp LOS	F	C	C	E	F	F	F	D	D	E	D	F
Approach Vol, veh/h	1587				1576		566				974	
Approach Delay, s/veh	54.8				122.2		54.0				127.8	
Approach LOS	D				F		D				F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.1	39.5	19.7	70.8	18.9	30.6	34.4	56.1				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+I), s	10.4	11.7	6.0	38.7	14.5	27.6	32.0	52.3				
Green Ext Time (p_c), s	0.0	2.3	0.0	11.8	0.1	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	92.4
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	1034	84	34	206	0	0	0	0	197	264	1288
Future Volume (veh/h)	0	1034	84	34	206	0	0	0	0	197	264	1288
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1162	94	38	231	0				221	297	1447
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1668	135	63	2021	0				270	1656	537
Arrive On Green	0.00	1.00	1.00	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3419	269	1781	3647	0				781	4791	1553
Grp Volume(v), veh/h	0	620	636	38	231	0				518	0	1447
Grp Sat Flow(s),veh/h/ln	0	1777	1817	1781	1777	0				1831	1870	1553
Q Serve(g_s), s	0.0	0.0	0.0	2.9	4.2	0.0				36.1	0.0	48.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.9	4.2	0.0				36.1	0.0	48.4
Prop In Lane	0.00		0.15	1.00		0.00				0.43		1.00
Lane Grp Cap(c), veh/h	0	891	912	63	2021	0				633	1293	537
V/C Ratio(X)	0.00	0.70	0.70	0.60	0.11	0.00				0.82	0.00	2.69
Avail Cap(c_a), veh/h	0	891	912	313	2021	0				633	1293	537
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.77	0.77	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	66.5	13.9	0.0				41.8	0.0	45.8
Incr Delay (d2), s/veh	0.0	3.5	3.5	2.6	0.1	0.0				11.2	0.0	767.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.9	1.4	1.7	0.0				18.4	0.0	133.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	3.5	3.5	69.1	14.0	0.0				53.0	0.0	813.7
LnGrp LOS	A	A	A	E	B	A				D	A	F
Approach Vol, veh/h		1256			269						1965	
Approach Delay, s/veh		3.5			21.8						613.2	
Approach LOS		A			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	76.8		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	14.9	2.0		50.4		6.2						
Green Ext Time (p_c), s	0.0	2.7		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	348.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2035 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	872	405	0	0	214	159	44	107	39	0	0	0
Future Volume (veh/h)	872	405	0	0	214	159	44	107	39	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	928	431	0	0	228	169	47	114	41			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1497	1486	0	0	593	419	83	217	128			
Arrive On Green	0.43	0.79	0.00	0.00	0.30	0.30	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	2070	1398	996	2602	1537			
Grp Volume(v), veh/h	928	431	0	0	204	193	86	75	41			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1597	1821	1777	1537			
Q Serve(g_s), s	16.6	4.9	0.0	0.0	7.3	7.7	3.6	3.2	2.0			
Cycle Q Clear(g_c), s	16.6	4.9	0.0	0.0	7.3	7.7	3.6	3.2	2.0			
Prop In Lane	1.00		0.00	0.00		0.88	0.55		1.00			
Lane Grp Cap(c), veh/h	1497	1486	0	0	533	479	152	148	128			
V/C Ratio(X)	0.62	0.29	0.00	0.00	0.38	0.40	0.57	0.51	0.32			
Avail Cap(c_a), veh/h	1497	1486	0	0	580	521	389	380	329			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.64	0.64	0.00	0.00	1.00	1.00	0.94	0.94	0.94			
Uniform Delay (d), s/veh	17.6	2.2	0.0	0.0	22.1	22.3	35.3	35.1	34.5			
Incr Delay (d2), s/veh	0.5	0.3	0.0	0.0	0.2	0.2	1.2	0.9	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.0	0.8	0.0	0.0	2.8	2.7	1.6	1.4	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	2.5	0.0	0.0	22.3	22.5	36.5	36.0	35.0			
LnGrp LOS	B	A	A	A	C	C	D	D	D			
Approach Vol, veh/h	1359				397			202				
Approach Delay, s/veh	13.1				22.4			36.0				
Approach LOS	B				C			D				
Timer - Assigned Phs	2				5		6	8				
Phs Duration (G+Y+Rc), s	68.4				39.5		28.9	11.6				
Change Period (Y+Rc), s	4.9				4.9		* 4.9	4.9				
Max Green Setting (Gmax), s	53.1				22.1		* 26	17.1				
Max Q Clear Time (g_c+I1), s	6.9				18.6		9.7	5.6				
Green Ext Time (p_c), s	1.6				1.3		1.3	0.5				

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	86	2520	984	0	0	2705
Future Volume (veh/h)	86	2520	984	0	0	2705
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	92	0	1058	0	0	2909
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	152		3181	0	262	5185
Arrive On Green	0.09	0.00	0.64	0.00	0.00	0.83
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	92	0	1058	0	0	2909
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	5.5	0.0	10.7	0.0	0.0	16.6
Cycle Q Clear(g_c), s	5.5	0.0	10.7	0.0	0.0	16.6
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	152		3181	0	262	5185
V/C Ratio(X)	0.60		0.33	0.00	0.00	0.56
Avail Cap(c_a), veh/h	486		3181	0	708	5185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	0.18	0.00	0.00	0.57
Uniform Delay (d), s/veh	48.5	0.0	9.1	0.0	0.0	3.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	3.4	0.0	0.0	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.6	0.0	9.2	0.0	0.0	3.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	92	A	1058			2909
Approach Delay, s/veh	48.6		9.2			3.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	30.6	75.1			95.7	14.3
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	43.3	22.1			70.2	30.0
Max Q Clear Time (g_c+I10), s	10.6	12.7			18.6	7.5
Green Ext Time (p_c), s	0.0	5.6			46.5	0.1

Intersection Summary

HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	317	2529	182	127	340	0	0	229	25
Future Volume (veh/h)	0	0	0	317	2529	182	127	340	0	0	229	25
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				337	2690	194	135	362	0	0	244	27
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				316	2693	196	151	1452	0	0	654	69
Arrive On Green				0.20	0.20	0.20	0.17	0.57	0.00	0.00	0.14	0.14
Sat Flow, veh/h				528	4495	327	1781	5274	0	0	4787	489
Grp Volume(v), veh/h				1176	974	1070	135	362	0	0	177	94
Grp Sat Flow(s),veh/h/ln				1844	1702	1804	1781	1702	0	0	1702	1703
Q Serve(g_s), s				65.9	62.3	65.1	8.2	3.9	0.0	0.0	5.2	5.5
Cycle Q Clear(g_c), s				65.9	62.3	65.1	8.2	3.9	0.0	0.0	5.2	5.5
Prop In Lane				0.29		0.18	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h				1105	1020	1081	151	1452	0	0	482	241
V/C Ratio(X)				1.06	0.96	0.99	0.90	0.25	0.00	0.00	0.37	0.39
Avail Cap(c_a), veh/h				1105	1020	1081	151	1499	0	0	529	265
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.09	0.09	0.09	0.67	0.67	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh				44.1	42.7	43.8	45.2	17.8	0.0	0.0	42.8	42.9
Incr Delay (d2), s/veh				31.4	3.0	6.3	32.9	0.1	0.0	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 BackOfQ(50%),veh/ln				42.1	29.1	33.2	4.6	1.4	0.0	0.0	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				75.6	45.6	50.1	78.1	17.9	0.0	0.0	43.0	43.6
LnGrp LOS				F	D	D	E	B	A	A	D	D
Approach Vol, veh/h					3221			497			271	
Approach Delay, s/veh					58.1			34.3			43.2	
Approach LOS					E			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.2	22.0		71.8	37.2				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.3	* 17		65.9	32.3				
Max Q Clear Time (g_c+I1), s				10.2	7.5		67.9	5.9				
Green Ext Time (p_c), s				0.0	0.8		0.0	2.7				
Intersection Summary												
HCM 6th Ctrl Delay					54.1							
HCM 6th LOS					D							
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	324	3222	0	0	0	0	0	198	75
Future Volume (veh/h)	0	0	0	324	3222	0	0	0	0	0	198	75
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				341	3392	0				0	208	79
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				333	3572	0				0	608	208
Arrive On Green				0.25	0.25	0.00				0.00	0.16	0.16
Sat Flow, veh/h				448	4972	0				0	3863	1262
Grp Volume(v), veh/h				1405	2328	0				0	190	97
Grp Sat Flow(s),veh/h/ln				1848	1702	0				0	1702	1553
Q Serve(g_s), s				81.8	73.3	0.0				0.0	5.4	6.1
Cycle Q Clear(g_c), s				81.8	73.3	0.0				0.0	5.4	6.1
Prop In Lane				0.24		0.00				0.00		0.81
Lane Grp Cap(c), veh/h				1374	2531	0				0	560	255
V/C Ratio(X)				1.02	0.92	0.00				0.00	0.34	0.38
Avail Cap(c_a), veh/h				1374	2531	0				0	560	255
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				41.5	38.3	0.0				0.0	40.7	41.0
Incr Delay (d2), s/veh				30.2	6.8	0.0				0.0	1.6	4.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				51.8	35.6	0.0				0.0	2.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				71.7	45.1	0.0				0.0	42.3	45.2
LnGrp LOS				F	D	A				A	D	D
Approach Vol, veh/h					3733						287	
Approach Delay, s/veh					55.1						43.3	
Approach LOS					E						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				23.0		87.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				18.1		81.8						
Max Q Clear Time (g_c+l1), s				8.1		83.8						
Green Ext Time (p_c), s				0.3		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											54.3	
HCM 6th LOS											D	

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3520	146	80	93	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3520	146	80	93	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3745	155	85	99	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3862	157	213	277	0			
Arrive On Green				0.00	0.25	0.25	0.14	0.14	0.00			
Sat Flow, veh/h				0	5196	205	1555	2108	0			
Grp Volume(v), veh/h				0	2517	1383	98	86	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1829	1793	1777	0			
Q Serve(g_s), s				0.0	80.3	82.7	5.5	4.8	0.0			
Cycle Q Clear(g_c), s				0.0	80.3	82.7	5.5	4.8	0.0			
Prop In Lane				0.00		0.11	0.87		0.00			
Lane Grp Cap(c), veh/h				0	2615	1405	246	244	0			
V/C Ratio(X)				0.00	0.96	0.98	0.40	0.35	0.00			
Avail Cap(c_a), veh/h				0	2615	1405	246	244	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	39.5	40.4	43.3	43.0	0.0			
Incr Delay (d2), s/veh				0.0	10.8	20.6	4.8	4.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	40.3	48.3	2.8	2.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	50.3	61.0	48.1	47.0	0.0			
LnGrp LOS				A	D	E	D	D	A			
Approach Vol, veh/h					3900			184				
Approach Delay, s/veh					54.1			47.6				
Approach LOS					D			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						90.0		20.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						84.5		15.1				
Max Q Clear Time (g_c+I1), s						84.7		7.5				
Green Ext Time (p_c), s						0.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay						53.8						
HCM 6th LOS						D						
Notes												
User approved pedestrian interval to be less than phase max green.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	370	3767	0	0	0	0	0	212	50
Future Volume (veh/h)	0	0	0	370	3767	0	0	0	0	0	212	50
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				378	3844	0				0	216	51
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				323	3535	0				0	614	260
Arrive On Green				0.24	0.24	0.00				0.00	0.17	0.17
Sat Flow, veh/h				440	4981	0				0	3647	1504
Grp Volume(v), veh/h				1589	2633	0				0	216	51
Grp Sat Flow(s),veh/h/ln				1848	1702	0				0	1777	1504
Q Serve(g_s), s				80.8	80.8	0.0				0.0	5.9	3.2
Cycle Q Clear(g_c), s				80.8	80.8	0.0				0.0	5.9	3.2
Prop In Lane				0.24		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1358	2500	0				0	614	260
V/C Ratio(X)				1.17	1.05	0.00				0.00	0.35	0.20
Avail Cap(c_a), veh/h				1358	2500	0				0	614	260
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				41.7	41.7	0.0				0.0	40.1	39.0
Incr Delay (d2), s/veh				85.0	33.8	0.0				0.0	1.6	1.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				72.0	48.5	0.0				0.0	2.7	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				126.7	75.5	0.0				0.0	41.7	40.6
LnGrp LOS				F	F	A				A	D	D
Approach Vol, veh/h					4222						267	
Approach Delay, s/veh					94.8						41.5	
Approach LOS					F						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				23.9		86.1						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				19.0		80.8						
Max Q Clear Time (g_c+l1), s				7.9		82.8						
Green Ext Time (p_c), s				1.1		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											91.6	
HCM 6th LOS											F	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3984	76	141	90	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3984	76	141	90	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	4107	78	145	93	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3868	73	277	276	0			
Arrive On Green				0.00	0.75	0.75	0.16	0.16	0.00			
Sat Flow, veh/h				0	5326	97	1781	1870	0			
Grp Volume(v), veh/h				0	2701	1484	145	93	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1850	1781	1777	0			
Q Serve(g_s), s				0.0	82.5	82.5	8.2	5.1	0.0			
Cycle Q Clear(g_c), s				0.0	82.5	82.5	8.2	5.1	0.0			
Prop In Lane				0.00		0.05	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2553	1388	277	276	0			
V/C Ratio(X)				0.00	1.06	1.07	0.52	0.34	0.00			
Avail Cap(c_a), veh/h				0	2553	1388	277	276	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	13.8	13.8	42.7	41.4	0.0			
Incr Delay (d2), s/veh				0.0	35.5	45.1	6.9	3.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	36.8	43.7	4.2	2.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	49.3	58.8	49.6	44.7	0.0			
LnGrp LOS				A	F	F	D	D	A			
Approach Vol, veh/h					4185			238				
Approach Delay, s/veh					52.7			47.7				
Approach LOS					D			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						88.0		22.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						82.5		17.1				
Max Q Clear Time (g_c+I1), s						84.5		10.2				
Green Ext Time (p_c), s						0.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay						52.4						
HCM 6th LOS						D						
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	170	476	2	104	0	0	0	18
Future Vol, veh/h	0	0	0	0	170	476	2	104	0	0	0	18
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	175	491	2	107	0	0	0	19
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	109	671	-	-	-	359
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	109	671	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	858	376	0	0	0	638
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	885	453	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	833	374	-	-	-	635
Mov Cap-2 Maneuver				-	-	-	833	374	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	859	451	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		18.4		10.8				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	374	-	-	635								
HCM Lane V/C Ratio	0.287	-	-	0.029								
HCM Control Delay (s)	18.4	-	-	10.8								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.2	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	926	11	2114	799	0
Future Volume (veh/h)	0	0	0	0	0	0	0	926	11	2114	799	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	1052	12	2402	908	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1152	358	3424	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.23	0.23	0.68	0.95	0.00
Sat Flow, veh/h		0					0	5149	1547	5023	1826	0
Grp Volume(v), veh/h		0.0					0	1052	12	2402	908	0
Grp Sat Flow(s),veh/h/ln							0	1662	1547	1674	1826	0
Q Serve(g_s), s							0.0	22.6	0.7	32.1	5.1	0.0
Cycle Q Clear(g_c), s							0.0	22.6	0.7	32.1	5.1	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1152	358	3424	1740	0
V/C Ratio(X)							0.00	0.91	0.03	0.70	0.52	0.00
Avail Cap(c_a), veh/h							0	1152	358	3424	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.80	0.80	0.00
Uniform Delay (d), s/veh							0.0	41.2	32.8	10.7	0.2	0.0
Incr Delay (d2), s/veh							0.0	11.7	0.1	0.5	0.9	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	10.1	0.3	9.7	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	52.9	32.9	11.2	1.1	0.0
LnGrp LOS							A	D	C	B	A	A
Approach Vol, veh/h								1064			3310	
Approach Delay, s/veh								52.7			8.4	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	79.4	30.6					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.3	* 24					68.8					
Max Q Clear Time (g_c+l1), s	34.1	24.6					7.1					
Green Ext Time (p_c), s	4.9	0.0					11.4					
Intersection Summary												
HCM 6th Ctrl Delay			19.2									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	107	1734	100	0	0	0	0	424	141	62	388	0
Future Volume (veh/h)	107	1734	100	0	0	0	0	424	141	62	388	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	118	1905	110				0	466	155	68	426	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	185	3183	992				0	647	206	98	1359	0
Arrive On Green	0.21	0.21	0.21				0.00	0.17	0.17	0.11	0.53	0.00
Sat Flow, veh/h	289	4971	1549				0	3958	1205	1781	5274	0
Grp Volume(v), veh/h	759	1264	110				0	416	205	68	426	0
Grp Sat Flow(s),veh/h/ln	1856	1702	1549				0	1702	1590	1781	1702	0
Q Serve(g_s), s	41.0	36.7	6.3				0.0	12.7	13.5	4.0	5.2	0.0
Cycle Q Clear(g_c), s	41.0	36.7	6.3				0.0	12.7	13.5	4.0	5.2	0.0
Prop In Lane	0.16		1.00				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	1188	2179	992				0	582	272	98	1359	0
V/C Ratio(X)	0.64	0.58	0.11				0.00	0.72	0.75	0.69	0.31	0.00
Avail Cap(c_a), veh/h	1188	2179	992				0	808	377	236	2070	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	31.8	30.1	18.1				0.0	43.1	43.4	48.0	20.1	0.0
Incr Delay (d2), s/veh	0.2	0.1	0.0				0.0	2.0	5.9	2.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.4	16.7	2.3				0.0	5.4	5.7	1.8	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	30.2	18.1				0.0	45.1	49.3	50.8	20.2	0.0
LnGrp LOS	C	C	B				A	D	D	D	C	A
Approach Vol, veh/h	2133							621			494	
Approach Delay, s/veh	30.2							46.5			24.4	
Approach LOS	C							D			C	
Timer - Assigned Phs	2		4				7		8			
Phs Duration (G+Y+Rc), s	75.3		34.7				10.5		24.2			
Change Period (Y+Rc), s	4.9		5.4				4.4		* 5.4			
Max Green Setting (Gmax), s	55.1		44.6				14.6		* 26			
Max Q Clear Time (g_c+I1), s	43.0		7.2				6.0		15.5			
Green Ext Time (p_c), s	11.0		2.4				0.0		3.2			

Intersection Summary

HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1909	25	0	0	0	0	0	0	240	344	0
Future Volume (veh/h)	0	1909	25	0	0	0	0	0	0	240	344	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2053	27							258	370	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3120	41							552	1055	0
Arrive On Green	0.00	0.20	0.20							0.10	0.10	0.00
Sat Flow, veh/h	0	5361	68							1781	3572	0
Grp Volume(v), veh/h	0	1345	735							258	370	0
Grp Sat Flow(s),veh/h/ln	0	1702	1857							1781	1702	0
Q Serve(g_s), s	0.0	40.1	40.1							15.0	11.1	0.0
Cycle Q Clear(g_c), s	0.0	40.1	40.1							15.0	11.1	0.0
Prop In Lane	0.00		0.04							1.00		0.00
Lane Grp Cap(c), veh/h	0	2046	1116							552	1055	0
V/C Ratio(X)	0.00	0.66	0.66							0.47	0.35	0.00
Avail Cap(c_a), veh/h	0	2046	1116							552	1055	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.7	33.7							40.8	39.1	0.0
Incr Delay (d2), s/veh	0.0	1.7	3.0							2.8	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.7	20.8							7.6	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.3	36.7							43.6	40.0	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2080									628	
Approach Delay, s/veh		35.8									41.5	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		71.0	39.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		66.1	34.1									
Max Q Clear Time (g_c+l1), s		42.1	17.0									
Green Ext Time (p_c), s		7.1	1.6									
Intersection Summary												
HCM 6th Ctrl Delay			37.1									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	57	2588	0	0	0	0	0	92	223	0	0	0
Future Volume (veh/h)	57	2588	0	0	0	0	0	92	223	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.92			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00				
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	61	2783	0				0	99	240			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	73	3525	0				0	405	334			
Arrive On Green	0.23	0.23	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	106	5331	0				0	1870	1463			
Grp Volume(v), veh/h	1071	1773	0				0	99	240			
Grp Sat Flow(s),veh/h/ln	1865	1702	0				0	1777	1463			
Q Serve(g_s), s	60.3	53.6	0.0				0.0	5.0	16.7			
Cycle Q Clear(g_c), s	60.3	53.6	0.0				0.0	5.0	16.7			
Prop In Lane	0.06		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1273	2324	0				0	405	334			
V/C Ratio(X)	0.84	0.76	0.00				0.00	0.24	0.72			
Avail Cap(c_a), veh/h	1273	2324	0				0	405	334			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	36.9	34.3	0.0				0.0	34.7	39.2			
Incr Delay (d2), s/veh	6.8	2.4	0.0				0.0	1.4	12.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	25.1	0.0				0.0	2.4	7.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	36.7	0.0				0.0	36.1	51.7			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h	2844					339						
Approach Delay, s/veh	39.4					47.2						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	80.0					30.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	75.1					25.1						
Max Q Clear Time (g_c+l1), s	62.3					18.7						
Green Ext Time (p_c), s	12.0					1.2						
Intersection Summary												
HCM 6th Ctrl Delay	40.2											
HCM 6th LOS	D											

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2948	109	0	0	0	0	0	0	187	380	0
Future Volume (veh/h)	0	2948	109	0	0	0	0	0	0	187	380	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3008	111							191	388	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2486	91							747	1489	0
Arrive On Green	0.00	0.16	0.16							0.14	0.14	0.00
Sat Flow, veh/h	0	5224	184							1781	3647	0
Grp Volume(v), veh/h	0	2013	1106							191	388	0
Grp Sat Flow(s),veh/h/ln	0	1702	1836							1781	1777	0
Q Serve(g_s), s	0.0	54.1	54.1							10.5	10.7	0.0
Cycle Q Clear(g_c), s	0.0	54.1	54.1							10.5	10.7	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	1674	903							747	1489	0
V/C Ratio(X)	0.00	1.20	1.23							0.26	0.26	0.00
Avail Cap(c_a), veh/h	0	1674	903							747	1489	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	46.1	46.1							32.1	32.2	0.0
Incr Delay (d2), s/veh	0.0	97.1	111.2							0.8	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	47.2	54.4							5.2	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	143.1	157.2							32.9	32.6	0.0
LnGrp LOS	A	F	F							C	C	A
Approach Vol, veh/h		3119									579	
Approach Delay, s/veh		148.1									32.7	
Approach LOS		F									C	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		59.0	51.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		54.1	46.1									
Max Q Clear Time (g_c+l1), s		56.1	12.7									
Green Ext Time (p_c), s		0.0	3.5									
Intersection Summary												
HCM 6th Ctrl Delay			130.1									
HCM 6th LOS			F									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	182	2578	0	0	0	0	0	109	46	0	0	0
Future Volume (veh/h)	182	2578	0	0	0	0	0	109	46	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	198	2802	0				0	118	50			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	234	3547	0				0	474	191			
Arrive On Green	0.24	0.24	0.00				0.00	0.19	0.19			
Sat Flow, veh/h	325	5101	0				0	2564	997			
Grp Volume(v), veh/h	1129	1871	0				0	83	85			
Grp Sat Flow(s),veh/h/ln	1854	1702	0				0	1777	1691			
Q Serve(g_s), s	64.0	56.3	0.0				0.0	4.4	4.7			
Cycle Q Clear(g_c), s	64.0	56.3	0.0				0.0	4.4	4.7			
Prop In Lane	0.18		0.00				0.00		0.59			
Lane Grp Cap(c), veh/h	1333	2448	0				0	341	324			
V/C Ratio(X)	0.85	0.76	0.00				0.00	0.24	0.26			
Avail Cap(c_a), veh/h	1333	2448	0				0	341	324			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	36.2	33.3	0.0				0.0	37.7	37.8			
Incr Delay (d2), s/veh	6.8	2.3	0.0				0.0	1.7	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	26.4	0.0				0.0	2.1	2.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	35.6	0.0				0.0	39.4	39.8			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h		3000						168				
Approach Delay, s/veh		38.4						39.6				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		84.0						26.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		79.1						21.1				
Max Q Clear Time (g_c+I1), s		66.0						6.7				
Green Ext Time (p_c), s		12.5						0.7				
Intersection Summary												
HCM 6th Ctrl Delay			38.4									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	50	1055	1163	87	87	212
Future Volume (veh/h)	50	1055	1163	87	87	212
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	52	1099	1211	91	91	221
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	67	3745	3193	240	546	250
Arrive On Green	0.01	0.25	1.00	1.00	0.16	0.16
Sat Flow, veh/h	1781	5149	4886	355	3456	1585
Grp Volume(v), veh/h	52	1099	852	450	91	221
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1753	1728	1585
Q Serve(g_s), s	3.4	21.1	0.0	0.0	2.7	16.1
Cycle Q Clear(g_c), s	3.4	21.1	0.0	0.0	2.7	16.1
Prop In Lane	1.00			0.20	1.00	1.00
Lane Grp Cap(c), veh/h	67	3745	2247	1186	546	250
V/C Ratio(X)	0.77	0.29	0.38	0.38	0.17	0.88
Avail Cap(c_a), veh/h	175	3745	2247	1186	1116	512
HCM Platoon Ratio	0.33	0.33	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	57.8	19.0	0.0	0.0	43.0	48.6
Incr Delay (d2), s/veh	6.2	0.2	0.4	0.8	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	9.4	0.1	0.3	1.2	13.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.0	19.1	0.4	0.8	43.0	52.6
LnGrp LOS	E	B	A	A	D	D
Approach Vol, veh/h		1151	1302		312	
Approach Delay, s/veh		21.2	0.6		49.8	
Approach LOS		C	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.5		23.5	8.9	85.6
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 69		38.1	11.6	53.2
Max Q Clear Time (g_c+I1), s		23.1		18.1	5.4	2.0
Green Ext Time (p_c), s		23.4		0.5	0.0	27.9

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	130	1010	13	12	1226	5	0	12	13	28	0	26
Future Volume (veh/h)	130	1010	13	12	1226	5	0	12	13	28	0	26
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		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	1041	13	12	1264	0	0	12	13	29	0	27
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	686	3618	45	60	1745		34	15	17	226	0	102
Arrive On Green	0.77	1.00	1.00	0.03	0.35	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5073	63	1781	4985	1585	1781	804	871	3456	0	1556
Grp Volume(v), veh/h	134	682	372	12	1264	0	0	0	25	29	0	27
Grp Sat Flow(s), veh/h/ln	1781	1662	1813	1781	1662	1585	1781	0	1676	1728	0	1556
Q Serve(g_s), s	2.4	0.0	0.0	0.8	26.1	0.0	0.0	0.0	1.8	0.9	0.0	1.9
Cycle Q Clear(g_c), s	2.4	0.0	0.0	0.8	26.1	0.0	0.0	0.0	1.8	0.9	0.0	1.9
Prop In Lane	1.00		0.03	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	686	2370	1293	60	1745		34	0	32	226	0	102
V/C Ratio(X)	0.20	0.29	0.29	0.20	0.72		0.00	0.00	0.79	0.13	0.00	0.27
Avail Cap(c_a), veh/h	686	2370	1293	60	1745		92	0	87	996	0	448
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	55.4	33.4	0.0	0.0	0.0	57.6	52.0	0.0	52.5
Incr Delay (d2), s/veh	0.0	0.3	0.5	0.6	2.7	0.0	0.0	0.0	14.6	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 BackOfQ(50%), veh/ln	0.9	0.1	0.2	0.3	10.4	0.0	0.0	0.0	0.9	0.4	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.6	0.3	0.5	56.0	36.1	0.0	0.0	0.0	72.2	52.1	0.0	53.0
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1188			1276			25			56		
Approach Delay, s/veh	1.3			36.2			72.2			52.5		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	89.9		12.6	51.2	47.1		7.1				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.0	54.0		34.0	16.6	* 41		6.1				
Max Q Clear Time (g_c+I), s	12.8	2.0		3.9	4.4	28.1		3.8				
Green Ext Time (p_c), s	0.0	16.7		0.1	0.1	9.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 20.6

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	478	209	598	1429	0	180	42	383	0	32	176
Future Volume (veh/h)	259	478	209	598	1429	0	180	42	383	0	32	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	493	215	616	1473	0	186	43	0	0	33	181
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	533	2721	1036	252	1954	0	430	233		0	165	233
Arrive On Green	0.30	0.55	0.55	0.07	0.31	0.00	0.12	0.12	0.00	0.00	0.09	0.09
Sat Flow, veh/h	1781	4985	1536	3456	6537	0	3456	1870	1585	0	1870	2647
Grp Volume(v), veh/h	267	493	215	616	1473	0	186	43	0	0	33	181
Grp Sat Flow(s),veh/h/ln	1781	1662	1536	1728	1570	0	1728	1870	1585	0	1870	1324
Q Serve(g_s), s	14.6	5.9	6.3	8.6	24.9	0.0	5.9	2.4	0.0	0.0	1.9	7.9
Cycle Q Clear(g_c), s	14.6	5.9	6.3	8.6	24.9	0.0	5.9	2.4	0.0	0.0	1.9	7.9
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	533	2721	1036	252	1954	0	430	233		0	165	233
V/C Ratio(X)	0.50	0.18	0.21	2.45	0.75	0.00	0.43	0.18		0.00	0.20	0.78
Avail Cap(c_a), veh/h	533	2721	1036	252	1954	0	1084	586		0	287	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	34.1	13.5	7.5	54.7	36.6	0.0	47.8	46.3	0.0	0.0	49.9	52.7
Incr Delay (d2), s/veh	0.3	0.1	0.5	651.7	0.3	0.0	0.2	0.1	0.0	0.0	0.6	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	2.1	3.0	26.4	9.2	0.0	2.5	1.1	0.0	0.0	0.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.4	13.7	7.9	706.4	36.8	0.0	48.0	46.4	0.0	0.0	50.5	58.1
LnGrp LOS	C	B	A	F	D	A	D	D		A	D	E
Approach Vol, veh/h	975		2089				229		A	214		
Approach Delay, s/veh	18.1		234.3				47.7			57.0		
Approach LOS	B		F				D			E		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	30.0	70.1	15.3		41.0	42.1	19.6					
Change Period (Y+Rc), s	4.4	5.7	4.9		5.7	* 5.4	4.9					
Max Green Setting (Gmax), s	30.0	34.4	18.1		6.6	* 37	37.0					
Max Q Clear Time (g_c+110, s)	110.0	8.3	9.9		16.6	26.9	7.9					
Green Ext Time (p_c), s	0.0	7.8	0.5		0.0	8.7	0.5					

Intersection Summary

HCM 6th Ctrl Delay 151.2

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	6	22	5	6	314	19	212	11	515	333	54
Future Volume (veh/h)	27	6	22	5	6	314	19	212	11	515	333	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	6	23	0	0	343	20	226	12	548	354	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	14	52	0	314	522	117	648	34	601	1407	224
Arrive On Green	0.04	0.04	0.04	0.00	0.00	0.17	0.07	0.19	0.19	0.34	0.46	0.46
Sat Flow, veh/h	1781	330	1264	0	1870	3104	1781	3420	180	1781	3052	486
Grp Volume(v), veh/h	29	0	29	0	0	343	20	117	121	548	204	207
Grp Sat Flow(s), veh/h/ln	1781	0	1594	0	1870	1552	1781	1777	1824	1781	1777	1761
Q Serve(g_s), s	1.0	0.0	1.1	0.0	0.0	6.3	0.6	3.5	3.5	17.9	4.2	4.3
Cycle Q Clear(g_c), s	1.0	0.0	1.1	0.0	0.0	6.3	0.6	3.5	3.5	17.9	4.2	4.3
Prop In Lane	1.00		0.79	0.00		1.00	1.00		0.10	1.00		0.28
Lane Grp Cap(c), veh/h	73	0	66	0	314	522	117	337	346	601	819	812
V/C Ratio(X)	0.40	0.00	0.44	0.00	0.00	0.66	0.17	0.35	0.35	0.91	0.25	0.25
Avail Cap(c_a), veh/h	117	0	105	0	894	1484	147	850	872	793	1494	1481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	28.4	0.0	0.0	23.6	26.8	21.3	21.3	19.2	10.0	10.0
Incr Delay (d2), s/veh	2.6	0.0	3.4	0.0	0.0	0.5	0.3	0.5	0.5	10.5	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.4	0.0	0.5	0.0	0.0	2.2	0.3	1.4	1.4	8.1	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.9	0.0	31.8	0.0	0.0	24.1	27.0	21.8	21.8	29.8	10.1	10.1
LnGrp LOS	C	A	C	A	A	C	C	C	C	C	B	B
Approach Vol, veh/h	58			343			258			959		
Approach Delay, s/veh	31.4			24.1			22.2			21.3		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.5	15.5		6.5	8.0	32.0		14.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	27.0	29.0		4.0	5.0	51.0		29.0				
Max Q Clear Time (g_c+T1), s	11.9	5.5		3.1	2.6	6.3		8.3				
Green Ext Time (p_c), s	0.6	1.0		0.0	0.0	2.0		0.8				

Intersection Summary

HCM 6th Ctrl Delay 22.4

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	161	2	4	78	138	205
Future Volume (veh/h)	161	2	4	78	138	205
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	167	0	4	0	142	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	786	412	702		285	
Arrive On Green	0.22	0.00	0.38	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	167	0	4	0	142	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.4	0.0	0.0	0.0	1.5	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	1.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	786	412	702		285	
V/C Ratio(X)	0.21	0.00	0.01		0.50	
Avail Cap(c_a), veh/h	1050	551	702		1204	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.9	0.0	7.3	0.0	16.4	0.0
Incr Delay (d2), s/veh	0.1	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
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.0	0.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.0	0.0	7.3	0.0	17.7	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		167	4	A	142	A
Approach Delay, s/veh		12.0	7.3		17.7	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.2		7.1		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+I1), s		3.4		3.5		2.0
Green Ext Time (p_c), s		0.3		0.3		0.0

Intersection Summary

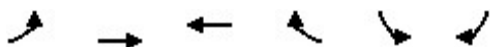
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

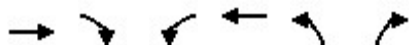
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	9	131	66	0	0	2
Future Vol, veh/h	9	131	66	0	0	2
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	152	77	0	0	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	84	0	-	0	181	48
Stage 1	-	-	-	-	84	-
Stage 2	-	-	-	-	97	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1511	-	-	-	791	1011
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	916	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1501	-	-	-	774	1002
Mov Cap-2 Maneuver	-	-	-	-	774	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	910	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.5	0		8.6		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1501	-	-	-	1002	
HCM Lane V/C Ratio	0.007	-	-	-	0.002	
HCM Control Delay (s)	7.4	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	2812	3414	0	0	0
Future Volume (veh/h)	0	2812	3414	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	3057	3711	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7293
Grp Volume(v), veh/h	0	3057	3711	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7732	7758
V/C Ratio(X)	0.00	1.19	1.44	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7732	7758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	88.7	201.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.1	40.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	102.2	214.6	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		3057	3711	1077	1255	504
Approach Delay, s/veh		102.2	214.6		8.1	
Approach LOS		F	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3397	48	123	1639	27	168
Future Volume (veh/h)	3397	48	123	1639	27	168
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3614	51	131	1744	29	179
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4276	1029	183	4844	254	203
Arrive On Green	0.68	0.68	0.11	1.00	0.14	0.14
Sat Flow, veh/h	6537	1511	3456	6537	1781	1427
Grp Volume(v), veh/h	3614	51	131	1744	29	179
Grp Sat Flow(s), veh/h/ln	1570	1511	1728	1570	1781	1427
Q Serve(g_s), s	51.0	1.3	4.3	0.0	1.7	14.5
Cycle Q Clear(g_c), s	51.0	1.3	4.3	0.0	1.7	14.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4276	1029	183	4844	254	203
V/C Ratio(X)	0.85	0.05	0.71	0.36	0.11	0.88
Avail Cap(c_a), veh/h	4276	1029	223	4844	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	14.2	6.2	51.9	0.0	44.1	49.6
Incr Delay (d2), s/veh	0.2	0.0	5.5	0.2	0.1	4.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.7	0.4	1.9	0.1	0.8	5.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.4	6.2	57.4	0.2	44.2	54.4
LnGrp LOS	B	A	E	A	D	D
Approach Vol, veh/h	3665			1875	208	
Approach Delay, s/veh	14.3			4.2	53.0	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	70.7	85.6		96.3	21.7	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	75.6	63.8		75.8	32.0	
Max Q Clear Time (g_c+I), s	110.3	53.0		2.0	16.5	
Green Ext Time (p_c), s	0.0	10.8		50.5	0.3	

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK



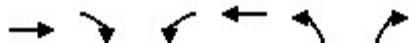
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰	↑	
Traffic Volume (veh/h)	11	3395	0	6	1584	72	0	0	0	5	0	5
Future Volume (veh/h)	11	3395	0	6	1584	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	3574	0	6	1667	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4109	0	60	5252	239	0	34	0	93	0	28
Arrive On Green	0.02	1.00	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	6199	283	0	1870	0	1752	0	1571
Grp Volume(v), veh/h	12	3574	0	6	1267	476	0	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	0	1781	1570	1771	0	1870	0	1752	0	1571
Q Serve(g_s), s	0.8	0.0	0.0	0.4	6.6	6.6	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	6.6	6.6	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.16	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4109	0	60	3991	1500	0	34	0	93	0	28
V/C Ratio(X)	0.61	0.87	0.00	0.10	0.32	0.32	0.00	0.00	0.00	0.05	0.00	0.18
Avail Cap(c_a), veh/h	60	4109	0	60	3991	1500	0	507	0	536	0	426
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.00	0.92	0.92	0.92	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.4	0.0	0.0	55.3	1.9	1.9	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	5.1	1.3	0.0	0.2	0.2	0.5	0.0	0.0	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 BackOfQ(50%),veh/ln	0.4	0.5	0.0	0.2	0.9	1.2	0.0	0.0	0.0	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	1.3	0.0	55.5	2.1	2.4	0.0	0.0	0.0	57.1	0.0	58.2
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3586			1749			0			10		
Approach Delay, s/veh	1.5			2.3			0.0			57.6		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.8	8.6		0.0				
Green Ext Time (p_c), s	0.0	65.2		0.0	0.0	38.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3363	2	30	1779	0	19
Future Volume (veh/h)	3363	2	30	1779	0	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3616	2	32	1913	0	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4132	2	43	4364	0	28
Arrive On Green	0.80	0.80	0.02	0.88	0.00	0.02
Sat Flow, veh/h	5310	3	1781	5149	0	1521
Grp Volume(v), veh/h	2335	1283	32	1913	0	21
Grp Sat Flow(s), veh/h/ln	1662	1825	1781	1662	0	1597
Q Serve(g_s), s	42.5	42.5	1.6	7.1	0.0	1.2
Cycle Q Clear(g_c), s	42.5	42.5	1.6	7.1	0.0	1.2
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2668	1466	43	4365	0	29
V/C Ratio(X)	0.88	0.88	0.74	0.44	0.00	0.73
Avail Cap(c_a), veh/h	2670	1467	90	4497	0	315
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.0	6.0	44.2	1.1	0.0	44.6
Incr Delay (d2), s/veh	4.1	7.1	8.7	0.3	0.0	29.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	9.1	0.8	0.1	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.0	13.0	52.9	1.4	0.0	73.6
LnGrp LOS	B	B	D	A	A	E
Approach Vol, veh/h	3618			1945	21	
Approach Delay, s/veh	11.1			2.2	73.6	
Approach LOS	B			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.6	78.5		85.1	6.2	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.5	
Max Green Setting (Gmax), s	11.6	73.3		82.3	18.0	
Max Q Clear Time (g_c+I), s	13.6	44.5		9.1	3.2	
Green Ext Time (p_c), s	0.0	28.7		59.0	0.0	

Intersection Summary

HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	115					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	289	0	0	1649	1033
Future Vol, veh/h	0	289	0	0	1649	1033
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	321	0	0	1832	1148

Major/Minor	Minor2		Major2	
Conflicting Flow All	2416	1500	-	0
Stage 1	2416	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	56	~ 95	-	-
Stage 1	30	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	55	~ 94	-	-
Mov Cap-2 Maneuver	55	-	-	-
Stage 1	30	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$	1182.2	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	94	-	-
HCM Lane V/C Ratio	-	3.416	-	-
HCM Control Delay (s)	\$	1182.2	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	32.1	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2035 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	805	119	66	886	362	50	36	25	218	92	149
Future Volume (veh/h)	148	805	119	66	886	362	50	36	25	218	92	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	904	134	74	996	407	56	40	28	245	103	167
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	2782	841	94	2502	758	260	254	180	378	483	421
Arrive On Green	0.22	1.00	1.00	0.11	0.98	0.98	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	5106	1544	1781	5106	1546	736	933	660	1320	1777	1548
Grp Volume(v), veh/h	166	904	134	74	996	407	57	0	67	245	103	167
Grp Sat Flow(s),veh/h/ln	1781	1702	1544	1781	1702	1546	755	0	1574	1320	1777	1548
Q Serve(g_s), s	10.6	0.0	0.0	4.8	0.8	1.3	5.1	0.0	3.8	20.4	5.3	10.4
Cycle Q Clear(g_c), s	10.6	0.0	0.0	4.8	0.8	1.3	15.5	0.0	3.8	24.2	5.3	10.4
Prop In Lane	1.00		1.00	1.00		1.00	0.98		0.42	1.00		1.00
Lane Grp Cap(c), veh/h	192	2782	841	94	2502	758	266	0	428	378	483	421
V/C Ratio(X)	0.87	0.32	0.16	0.79	0.40	0.54	0.22	0.00	0.16	0.65	0.21	0.40
Avail Cap(c_a), veh/h	326	2782	841	175	2502	758	350	0	548	478	619	539
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	0.0	52.2	0.6	0.6	41.2	0.0	32.7	41.9	33.2	35.1
Incr Delay (d2), s/veh	4.6	0.3	0.3	5.1	0.4	2.5	0.1	0.0	0.1	5.4	0.6	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.1	0.1	2.1	0.3	0.7	1.5	0.0	1.5	7.2	2.4	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	0.3	0.3	57.2	1.0	3.1	41.4	0.0	32.7	47.3	33.8	36.8
LnGrp LOS	D	A	A	E	A	A	D	A	C	D	C	D
Approach Vol, veh/h		1204			1477			124			515	
Approach Delay, s/veh		7.1			4.4			36.7			41.2	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	70.4		37.0	17.1	63.9		37.0				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	11.6	* 50		41.1	21.6	39.9		41.1				
Max Q Clear Time (g_c+I1), s	6.8	2.0		26.2	12.6	3.3		17.5				
Green Ext Time (p_c), s	0.0	14.2		4.7	0.1	23.4		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	472	0	0	585	454	0	0	0	596	0	96
Future Volume (veh/h)	60	472	0	0	585	454	0	0	0	596	0	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	71	555	0	0	688	0	0	0	0	806	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	2312	0	2	2008		0	2	1	887	466	0
Arrive On Green	0.05	0.65	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.25	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3558	1870	0
Grp Volume(v), veh/h	71	555	0	0	688	0	0	0	0	806	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1779	1870	0
Q Serve(g_s), s	4.7	7.6	0.0	0.0	19.9	0.0	0.0	0.0	0.0	25.9	0.0	0.0
Cycle Q Clear(g_c), s	4.7	7.6	0.0	0.0	19.9	0.0	0.0	0.0	0.0	25.9	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	86	2312	0	2	2008		0	2	1	887	466	0
V/C Ratio(X)	0.83	0.24	0.00	0.00	0.34		0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap(c_a), veh/h	86	2312	0	62	2008		0	476	403	1116	586	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.80	0.00	0.00
Uniform Delay (d), s/veh	55.7	8.5	0.0	0.0	29.0	0.0	0.0	0.0	0.0	43.0	0.0	0.0
Incr Delay (d2), s/veh	43.2	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	6.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.7	0.0	0.0	9.5	0.0	0.0	0.0	0.0	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	98.9	8.8	0.0	0.0	29.4	0.0	0.0	0.0	0.0	49.8	0.0	0.0
LnGrp LOS	F	A	A	A	C		A	A	A	D	A	A
Approach Vol, veh/h	626				688	A	0				806	
Approach Delay, s/veh	19.0				29.4		0.0				49.8	
Approach LOS	B				C						D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	82.7		35.3	10.1	72.6		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s		* 27		37.0	5.7	24.2		30.0				
Max Q Clear Time (g_c+I10), s		9.6		27.9	6.7	21.9		0.0				
Green Ext Time (p_c), s	0.0	7.2		1.4	0.0	1.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	342	219	106	246	115	136	936	103	144	1205	102
Future Volume (veh/h)	336	342	219	106	246	115	136	936	103	144	1205	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	360	231	112	259	121	143	985	108	152	1268	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	465	292	137	428	272	199	1536	168	191	1684	736
Arrive On Green	0.18	0.23	0.23	0.08	0.12	0.12	0.06	0.48	0.48	0.06	0.47	0.47
Sat Flow, veh/h	1781	2066	1299	1781	3554	1538	3456	3226	354	3456	3554	1553
Grp Volume(v), veh/h	354	309	282	112	259	121	143	542	551	152	1268	107
Grp Sat Flow(s),veh/h/ln	1781	1777	1588	1781	1777	1538	1728	1777	1803	1728	1777	1553
Q Serve(g_s), s	20.6	18.9	19.4	7.2	8.0	5.2	4.7	26.7	26.7	5.0	33.9	2.2
Cycle Q Clear(g_c), s	20.6	18.9	19.4	7.2	8.0	5.2	4.7	26.7	26.7	5.0	33.9	2.2
Prop In Lane	1.00		0.82	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	316	400	357	137	428	272	199	846	859	191	1684	736
V/C Ratio(X)	1.12	0.77	0.79	0.81	0.61	0.44	0.72	0.64	0.64	0.80	0.75	0.15
Avail Cap(c_a), veh/h	316	528	472	227	888	472	256	846	859	191	1684	736
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	42.2	42.4	52.7	48.4	20.3	53.7	22.9	22.9	54.2	25.0	4.1
Incr Delay (d2), s/veh	86.7	3.5	4.7	4.1	0.5	0.4	4.2	3.7	3.7	19.2	3.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	8.6	8.0	3.4	3.6	2.2	2.2	11.8	12.0	2.7	14.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.4	45.6	47.1	56.8	48.9	20.7	58.0	26.6	26.6	73.4	28.1	4.6
LnGrp LOS	F	D	D	E	D	C	E	C	C	E	C	A
Approach Vol, veh/h	945				492				1236		1527	
Approach Delay, s/veh	79.3				43.8				30.2		31.0	
Approach LOS	E				D				C		C	
Timer - Assigned Phs												
	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	60.5	13.4	31.3	11.1	60.3	25.8	18.9					
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	41	* 41	14.8	34.5	8.6	38.8	20.6	* 29				
Max Q Clear Time (g_c+11), s	28.7	28.7	9.2	21.4	6.7	35.9	22.6	10.0				
Green Ext Time (p_c), s	0.0	2.4	0.0	1.2	0.0	1.4	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	43.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	290	104	161	217	72	146	121	206	59	102	72
Future Volume (veh/h)	50	290	104	161	217	72	146	121	206	59	102	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.92	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	309	111	171	231	77	155	129	219	63	109	77
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	1200	659	246	693	543	189	1086	579	82	873	361
Arrive On Green	0.04	0.34	0.34	0.07	0.37	0.37	0.11	0.31	0.31	0.05	0.25	0.25
Sat Flow, veh/h	1781	3554	1455	3456	1870	1466	1781	3554	1525	1781	3554	1470
Grp Volume(v), veh/h	53	309	111	171	231	77	155	129	219	63	109	77
Grp Sat Flow(s),veh/h/ln	1781	1777	1455	1728	1870	1466	1781	1777	1525	1781	1777	1470
Q Serve(g_s), s	2.9	6.2	4.5	4.7	8.7	3.4	8.3	2.6	10.2	3.4	2.3	4.1
Cycle Q Clear(g_c), s	2.9	6.2	4.5	4.7	8.7	3.4	8.3	2.6	10.2	3.4	2.3	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	1200	659	246	693	543	189	1086	579	82	873	361
V/C Ratio(X)	0.77	0.26	0.17	0.70	0.33	0.14	0.82	0.12	0.38	0.77	0.12	0.21
Avail Cap(c_a), veh/h	547	1456	764	1062	766	601	547	1456	737	547	1456	602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	23.5	16.4	44.3	22.1	20.4	42.7	24.4	22.2	46.1	28.7	29.3
Incr Delay (d2), s/veh	6.7	0.1	0.1	1.3	0.2	0.1	3.4	0.0	0.4	5.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	2.6	1.5	2.1	3.8	1.2	3.8	1.1	3.6	1.6	1.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.2	23.6	16.5	45.7	22.2	20.5	46.1	24.5	22.6	51.7	28.7	29.4
LnGrp LOS	D	C	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		473			479			503			249	
Approach Delay, s/veh		25.3			30.3			30.3			34.7	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.3	38.9	15.8	30.7	9.2	42.1	9.9	36.5				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+l1), s	6.7	8.2	10.3	6.1	4.9	10.7	5.4	12.2				
Green Ext Time (p_c), s	0.3	3.1	0.2	0.6	0.1	1.1	0.1	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			29.6									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	11	0	21	23	2	50	31	363	23	52	291	25
Future Volume (veh/h)	11	0	21	23	2	50	31	363	23	52	291	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		0.97	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	0	23	25	2	55	34	399	25	57	320	27
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	50	273	532	36	498	57	1415	88	85	1459	121
Arrive On Green	0.27	0.00	0.27	0.27	0.27	0.27	0.03	0.29	0.29	0.05	0.30	0.30
Sat Flow, veh/h	334	184	993	1269	130	1537	1781	4901	303	1781	4790	396
Grp Volume(v), veh/h	35	0	0	27	0	55	34	275	149	57	226	121
Grp Sat Flow(s), veh/h/ln	1511	0	0	1400	0	1537	1781	1702	1800	1781	1702	1782
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.0	0.7	2.4	2.4	1.2	1.9	1.9
Cycle Q Clear(g_c), s	0.6	0.0	0.0	0.4	0.0	1.0	0.7	2.4	2.4	1.2	1.9	1.9
Prop In Lane	0.34		0.66	0.93		1.00	1.00		0.17	1.00		0.22
Lane Grp Cap(c), veh/h	543	0	0	568	0	498	57	983	520	85	1037	543
V/C Ratio(X)	0.06	0.00	0.00	0.05	0.00	0.11	0.60	0.28	0.29	0.67	0.22	0.22
Avail Cap(c_a), veh/h	1679	0	0	1646	0	1701	1413	5402	2857	1413	5402	2827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	0.0	0.0	10.1	0.0	9.0	18.1	10.4	10.4	17.7	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.2	0.4	3.4	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 BackOfQ(50%), veh/ln	0.2	0.0	0.0	0.1	0.0	0.2	0.3	0.7	0.8	0.5	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.2	0.0	0.0	10.1	0.0	9.0	21.8	10.6	10.8	21.1	9.9	10.0
LnGrp LOS	B	A	A	B	A	A	C	B	B	C	A	B
Approach Vol, veh/h		35			82			458			404	
Approach Delay, s/veh		10.2			9.4			11.5			11.5	
Approach LOS		B			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	16.3		15.3	5.6	16.9		15.3				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.2	4.4		2.6	2.7	3.9		3.0				
Green Ext Time (p_c), s	0.1	4.1		0.1	0.0	2.8		0.2				

Intersection Summary

HCM 6th Ctrl Delay 11.3

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	25	60	51	41	15	246	609	68	26	508	109
Future Volume (veh/h)	17	25	60	51	41	15	246	609	68	26	508	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.89	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	27	65	55	45	16	267	662	74	28	552	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	67	503	378	71	508	382	310	1595	678	38	880	187
Arrive On Green	0.04	0.27	0.27	0.04	0.27	0.27	0.17	0.45	0.45	0.02	0.31	0.31
Sat Flow, veh/h	1781	1870	1405	1781	1870	1407	1781	3554	1511	1781	2881	613
Grp Volume(v), veh/h	18	27	65	55	45	16	267	662	74	28	339	331
Grp Sat Flow(s),veh/h/ln	1781	1870	1405	1781	1870	1407	1781	1777	1511	1781	1777	1717
Q Serve(g_s), s	1.0	1.1	3.8	3.2	1.9	0.9	15.4	13.4	3.0	1.7	17.4	17.5
Cycle Q Clear(g_c), s	1.0	1.1	3.8	3.2	1.9	0.9	15.4	13.4	3.0	1.7	17.4	17.5
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	67	503	378	71	508	382	310	1595	678	38	543	524
V/C Ratio(X)	0.27	0.05	0.17	0.77	0.09	0.04	0.86	0.42	0.11	0.74	0.63	0.63
Avail Cap(c_a), veh/h	504	530	398	504	530	398	504	2013	856	504	1006	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	49.6	28.7	29.7	50.4	28.8	28.4	42.5	19.8	16.9	51.6	31.6	31.6
Incr Delay (d2), s/veh	0.8	0.0	0.1	6.4	0.0	0.0	10.8	0.2	0.1	10.1	3.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	1.3	1.6	0.9	0.3	7.7	5.5	1.1	0.8	7.9	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	28.7	29.7	56.8	28.8	28.4	53.3	20.0	17.0	61.7	34.8	35.1
LnGrp LOS	D	C	C	E	C	C	D	B	B	E	C	D
Approach Vol, veh/h	110			116			1003			698		
Approach Delay, s/veh	32.9			42.0			28.6			36.0		
Approach LOS	C			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	56.2	8.6	33.4	22.8	41.1	8.4	33.7				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	13.7	15.4	5.2	5.8	17.4	19.5	3.0	3.9				
Green Ext Time (p_c), s	0.0	7.2	0.1	0.2	1.0	11.3	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 32.4

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	289	31	210	130	0	0	0	0	213	39	48
Future Volume (veh/h)	0	289	31	210	130	0	0	0	0	213	39	48
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	304	33	221	137	0				253	0	51
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	286	570	250	397	758	0				883	0	641
Arrive On Green	0.00	0.16	0.16	0.22	0.22	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1781	3554	1560	1781	3572	0				3563	0	1561
Grp Volume(v), veh/h	0	304	33	221	137	0				253	0	51
Grp Sat Flow(s), veh/h/ln	1781	1777	1560	1781	1702	0				1781	0	1561
Q Serve(g_s), s	0.0	3.1	0.7	4.3	1.3	0.0				2.3	0.0	0.8
Cycle Q Clear(g_c), s	0.0	3.1	0.7	4.3	1.3	0.0				2.3	0.0	0.8
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	286	570	250	397	758	0				883	0	641
V/C Ratio(X)	0.00	0.53	0.13	0.56	0.18	0.00				0.29	0.00	0.08
Avail Cap(c_a), veh/h	2719	5424	2381	2719	5195	0				3172	0	1644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.2	14.2	13.6	12.4	0.0				12.0	0.0	7.1
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.4	0.1	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 BackOfQ(50%), veh/ln	0.0	1.0	0.2	1.4	0.4	0.0				0.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.4	14.2	14.9	12.5	0.0				12.0	0.0	7.1
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	337			358			304					
Approach Delay, s/veh	15.3			14.0			11.2					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	10.3			15.9			13.1					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+l1), s	5.1			4.3			6.3					
Green Ext Time (p_c), s	1.2			0.6			2.4					

Intersection Summary

HCM 6th Ctrl Delay 13.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	440	0	2	318	254	53	19	190	19	0	223
Future Volume (veh/h)	114	440	0	2	318	254	53	19	190	19	0	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.99		0.99	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
Work Zone On Approach	No				No						No	
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	478	0	2	346	276	58	21	207	21	0	242
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1529	0	46	527	401	331	27	265	25	0	289
Arrive On Green	0.09	0.43	0.00	0.28	0.28	0.28	0.19	0.19	0.19	0.20	0.00	0.20
Sat Flow, veh/h	1781	3647	0	2	1866	1422	1781	145	1426	127	0	1459
Grp Volume(v), veh/h	124	478	0	348	0	276	58	0	228	263	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1868	0	1422	1781	0	1571	1586	0	0
Q Serve(g_s), s	5.4	7.1	0.0	0.0	0.0	13.8	2.2	0.0	11.0	12.7	0.0	0.0
Cycle Q Clear(g_c), s	5.4	7.1	0.0	13.1	0.0	13.8	2.2	0.0	11.0	12.7	0.0	0.0
Prop In Lane	1.00		0.00	0.01		1.00	1.00		0.91	0.08		0.92
Lane Grp Cap(c), veh/h	163	1529	0	573	0	401	331	0	292	315	0	0
V/C Ratio(X)	0.76	0.31	0.00	0.61	0.00	0.69	0.17	0.00	0.78	0.84	0.00	0.00
Avail Cap(c_a), veh/h	669	2671	0	1445	0	1069	893	0	787	795	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.4	15.0	0.0	25.3	0.0	25.5	27.3	0.0	30.9	30.7	0.0	0.0
Incr Delay (d2), s/veh	8.5	0.0	0.0	1.3	0.0	2.5	0.1	0.0	1.7	2.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.5	0.0	5.5	0.0	4.5	0.9	0.0	4.2	4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.9	15.0	0.0	26.5	0.0	28.0	27.4	0.0	32.7	33.0	0.0	0.0
LnGrp LOS	D	B	A	C	A	C	C	A	C	C	A	A
Approach Vol, veh/h	602				624		286				263	
Approach Delay, s/veh	21.0				27.2		31.6				33.0	
Approach LOS	C				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	38.7		19.8		11.8	26.9	21.3					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	9.1		14.7		7.4	15.8	13.0					
Green Ext Time (p_c), s	1.9		1.2		0.4	5.0	1.1					

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	539	163	281	388	0	0	0	0	336	189	205
Future Volume (veh/h)	0	539	163	281	388	0	0	0	0	336	189	205
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	567	172	296	408	0				354	199	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1885	825	371	2453	0				688	361	297
Arrive On Green	0.00	0.53	0.53	0.21	1.00	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	3647	1555	3456	3647	0				3563	1870	1538
Grp Volume(v), veh/h	0	567	172	296	408	0				354	199	216
Grp Sat Flow(s),veh/h/ln	0	1777	1555	1728	1777	0				1781	1870	1538
Q Serve(g_s), s	0.0	7.5	4.9	6.8	0.0	0.0				7.5	8.1	11.1
Cycle Q Clear(g_c), s	0.0	7.5	4.9	6.8	0.0	0.0				7.5	8.1	11.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1885	825	371	2453	0				688	361	297
V/C Ratio(X)	0.00	0.30	0.21	0.80	0.17	0.00				0.51	0.55	0.73
Avail Cap(c_a), veh/h	0	1885	825	518	2453	0				1361	715	588
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	11.0	10.4	32.1	0.0	0.0				30.4	30.6	31.8
Incr Delay (d2), s/veh	0.0	0.4	0.6	3.7	0.1	0.0				0.2	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.6	1.6	2.6	0.0	0.0				3.2	3.6	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.4	11.0	35.8	0.1	0.0				30.6	31.1	33.1
LnGrp LOS	A	B	B	D	A	A				C	C	C
Approach Vol, veh/h		739			704						769	
Approach Delay, s/veh		11.3			15.1						31.4	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.4	49.5		21.1		62.9						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	2.6	25.1		32.1		42.1						
Max Q Clear Time (g_c+I), s	1.8	9.5		13.1		2.0						
Green Ext Time (p_c), s	0.2	4.3		1.8		3.0						

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	336	536	0	0	546	463	124	227	20	0	0	0
Future Volume (veh/h)	336	536	0	0	546	463	124	227	20	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	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			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	365	583	0	0	593	503	135	247	22			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1260	2692	0	0	1189	517	207	421	37			
Arrive On Green	0.73	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1547	1650	3351	297			
Grp Volume(v), veh/h	365	583	0	0	593	503	146	124	134			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1547	1788	1702	1808			
Q Serve(g_s), s	3.0	0.0	0.0	0.0	11.2	26.9	6.5	5.8	5.9			
Cycle Q Clear(g_c), s	3.0	0.0	0.0	0.0	11.2	26.9	6.5	5.8	5.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.92		0.16			
Lane Grp Cap(c), veh/h	1260	2692	0	0	1189	517	225	214	227			
V/C Ratio(X)	0.29	0.22	0.00	0.00	0.50	0.97	0.65	0.58	0.59			
Avail Cap(c_a), veh/h	1260	2692	0	0	1189	517	598	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.93	0.93	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.6	0.0	0.0	0.0	22.3	27.6	35.0	34.6	34.7			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.5	33.2	1.2	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			
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.0	0.0	4.5	13.7	2.9	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.2	0.0	0.0	23.8	60.8	36.2	35.5	35.6			
LnGrp LOS	A	A	A	A	C	E	D	D	D			
Approach Vol, veh/h	948			1096			404					
Approach Delay, s/veh	3.1			40.8			35.8					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.5			35.5			33.0			15.5		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			5.0			28.9			8.5		
Green Ext Time (p_c), s	4.9			0.8			0.0			1.5		

Intersection Summary

HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↩		↩↩↩					
Traffic Volume (veh/h)	0	0	0	0	22	63	23	1318	15	0	0	0
Future Volume (veh/h)	0	0	0	0	22	63	23	1318	15	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	24	69	25	1448	16			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	32	91	106	3406	37			
Arrive On Green				0.00	0.07	0.07	0.68	0.68	0.68			
Sat Flow, veh/h				0	426	1224	33	5012	55			
Grp Volume(v), veh/h				0	0	93	544	452	493			
Grp Sat Flow(s),veh/h/ln				0	0	1650	1860	1549	1690			
Q Serve(g_s), s				0.0	0.0	2.5	0.0	6.0	6.0			
Cycle Q Clear(g_c), s				0.0	0.0	2.5	5.9	6.0	6.0			
Prop In Lane				0.00		0.74	0.05		0.03			
Lane Grp Cap(c), veh/h				0	0	123	1347	1053	1149			
V/C Ratio(X)				0.00	0.00	0.76	0.40	0.43	0.43			
Avail Cap(c_a), veh/h				0	0	1463	2547	2060	2248			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	20.5	3.3	3.3	3.3			
Incr Delay (d2), s/veh				0.0	0.0	3.6	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	1.0	1.0	0.8	0.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	24.1	3.6	3.7	3.6			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					93			1489				
Approach Delay, s/veh					24.1			3.6				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		36.3						8.9				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		8.0						4.5				
Green Ext Time (p_c), s		22.7						0.4				
Intersection Summary												
HCM 6th Ctrl Delay			4.8									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	244	76	390	561	141	172	342	147	96	326	103
Future Volume (veh/h)	126	244	76	390	561	141	172	342	147	96	326	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	262	82	419	603	152	185	368	158	103	351	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	541	455	434	635	160	197	755	302	129	677	201
Arrive On Green	0.09	0.29	0.29	0.24	0.44	0.44	0.11	0.21	0.21	0.07	0.18	0.18
Sat Flow, veh/h	1781	1870	1574	1781	1440	363	1781	3535	1413	1781	3855	1145
Grp Volume(v), veh/h	135	262	82	419	0	755	185	353	173	103	307	155
Grp Sat Flow(s), veh/h/ln	1781	1870	1574	1781	0	1803	1781	1702	1544	1781	1702	1596
Q Serve(g_s), s	7.8	12.2	4.1	24.4	0.0	42.3	10.8	9.6	10.4	6.0	8.6	9.3
Cycle Q Clear(g_c), s	7.8	12.2	4.1	24.4	0.0	42.3	10.8	9.6	10.4	6.0	8.6	9.3
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.92	1.00		0.72
Lane Grp Cap(c), veh/h	163	541	455	434	0	795	197	727	330	129	598	280
V/C Ratio(X)	0.83	0.48	0.18	0.96	0.00	0.95	0.94	0.49	0.52	0.80	0.51	0.55
Avail Cap(c_a), veh/h	173	588	495	434	0	831	197	937	425	229	999	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(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	46.9	30.9	28.0	39.2	0.0	28.2	46.3	36.2	36.6	47.9	39.2	39.5
Incr Delay (d2), s/veh	23.8	0.3	0.1	33.8	0.0	19.5	46.7	0.9	2.4	4.2	1.2	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.6	5.5	1.6	14.7	0.0	22.0	7.3	4.0	4.1	2.8	3.6	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	70.7	31.1	28.1	73.1	0.0	47.7	93.0	37.2	39.0	52.1	40.4	42.5
LnGrp LOS	E	C	C	E	A	D	F	D	D	D	D	D
Approach Vol, veh/h		479			1174			711			565	
Approach Delay, s/veh		41.7			56.8			52.1			43.1	
Approach LOS		D			E			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.7	30.0	35.3	16.0	23.7	14.0	51.2					
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	28.9	25.6	33.0	11.6	30.8	10.2	48.4					
Max Q Clear Time (g_c+I), s	12.4	26.4	14.2	12.8	11.3	9.8	44.3					
Green Ext Time (p_c), s	0.0	4.9	0.0	1.1	0.0	4.5	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			50.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2035 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	158	395	109	276	0	0	0	0	70	1650	732
Future Volume (veh/h)	0	158	395	109	276	0	0	0	0	70	1650	732
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	161	403	111	282	0				71	1684	747
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	519	440	200	556	0				1046	2069	857
Arrive On Green	0.00	0.28	0.28	0.28	0.28	0.00				0.59	0.59	0.59
Sat Flow, veh/h	0	1870	1585	502	2088	0				1781	3525	1460
Grp Volume(v), veh/h	0	161	403	178	215	0				71	1622	809
Grp Sat Flow(s),veh/h/ln	0	1870	1585	888	1617	0				1781	1702	1582
Q Serve(g_s), s	0.0	6.5	23.6	12.6	10.7	0.0				1.6	36.1	41.5
Cycle Q Clear(g_c), s	0.0	6.5	23.6	19.2	10.7	0.0				1.6	36.1	41.5
Prop In Lane	0.00		1.00	0.63		0.00				1.00		0.92
Lane Grp Cap(c), veh/h	0	519	440	307	449	0				1046	1998	928
V/C Ratio(X)	0.00	0.31	0.92	0.58	0.48	0.00				0.07	0.81	0.87
Avail Cap(c_a), veh/h	0	649	550	382	561	0				1053	2012	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	27.4	33.6	33.4	28.9	0.0				8.5	15.6	16.7
Incr Delay (d2), s/veh	0.0	0.1	16.0	1.3	0.6	0.0				0.0	2.9	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	10.9	3.9	4.2	0.0				0.6	13.4	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.5	49.5	34.6	29.5	0.0				8.6	18.5	26.2
LnGrp LOS	A	C	D	C	C	A				A	B	C
Approach Vol, veh/h		564			393						2502	
Approach Delay, s/veh		43.2			31.8						20.7	
Approach LOS		D			C						C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				33.3		62.6		33.3				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				33.3		56.7		33.3				
Max Q Clear Time (g_c+I1), s				25.6		43.5		21.2				
Green Ext Time (p_c), s				1.0		12.8		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			25.6									
HCM 6th LOS			C									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2035 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	133	17	80	0	27	16	356	1337	35	0	0	0
Future Volume (veh/h)	133	17	80	0	27	16	356	1337	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	155	20	93	0	31	19	414	1555	41			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	352	33	1234	0	214	131	1037	2057	54			
Arrive On Green	0.20	0.20	0.20	0.00	0.20	0.20	0.58	0.58	0.58			
Sat Flow, veh/h	1087	169	1573	0	1083	664	1781	3535	93			
Grp Volume(v), veh/h	175	0	93	0	0	50	414	780	816			
Grp Sat Flow(s), veh/h/ln	1256	0	1573	0	0	1747	1781	1777	1851			
Q Serve(g_s), s	5.6	0.0	0.0	0.0	0.0	1.2	6.3	16.2	16.3			
Cycle Q Clear(g_c), s	6.8	0.0	0.0	0.0	0.0	1.2	6.3	16.2	16.3			
Prop In Lane	0.89		1.00	0.00		0.38	1.00		0.05			
Lane Grp Cap(c), veh/h	386	0	1234	0	0	346	1037	1034	1077			
V/C Ratio(X)	0.45	0.00	0.08	0.00	0.00	0.14	0.40	0.75	0.76			
Avail Cap(c_a), veh/h	749	0	1643	0	0	748	1183	1180	1229			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	19.1	0.0	1.3	0.0	0.0	16.4	5.6	7.7	7.7			
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.1	0.2	2.4	2.4			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	1.8	0.0	0.0	0.0	0.0	0.4	1.6	4.7	4.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.9	0.0	1.3	0.0	0.0	16.5	5.9	10.2	10.2			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h	268			50			2010					
Approach Delay, s/veh	13.5			16.5			9.3					
Approach LOS	B			B			A					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	33.3			16.2			16.2					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	32.9			* 23			21.2					
Max Q Clear Time (g_c+I1), s	18.3			8.8			3.2					
Green Ext Time (p_c), s	10.5			1.1			0.1					

Intersection Summary

HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	44	48	183	14	88	35	542	172	39	789	16
Future Volume (veh/h)	32	44	48	183	14	88	35	542	172	39	789	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	46	51	193	15	93	37	571	181	41	831	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	421	218	241	435	60	374	57	2036	619	120	2065	42
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.40	0.40	0.03	0.40	0.40
Sat Flow, veh/h	1279	807	895	1291	224	1386	1781	5106	1552	3456	5146	105
Grp Volume(v), veh/h	34	0	97	193	0	108	37	571	181	41	549	299
Grp Sat Flow(s),veh/h/ln	1279	0	1702	1291	0	1610	1781	1702	1552	1728	1702	1847
Q Serve(g_s), s	1.1	0.0	2.2	6.8	0.0	2.6	1.0	3.8	4.0	0.6	5.8	5.8
Cycle Q Clear(g_c), s	3.7	0.0	2.2	9.0	0.0	2.6	1.0	3.8	4.0	0.6	5.8	5.8
Prop In Lane	1.00		0.53	1.00		0.86	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	421	0	459	435	0	434	57	2036	619	120	1366	741
V/C Ratio(X)	0.08	0.00	0.21	0.44	0.00	0.25	0.65	0.28	0.29	0.34	0.40	0.40
Avail Cap(c_a), veh/h	1096	0	1357	1116	0	1284	1065	6107	1857	2067	4071	2209
HCM Platoon Ratio	1.00	1.00	1.00	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	15.8	0.0	14.2	17.7	0.0	14.3	24.0	10.2	10.3	23.7	10.7	10.7
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.1	4.5	0.1	0.5	0.6	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.8	1.9	0.0	0.9	0.5	1.2	1.2	0.2	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	0.0	14.3	18.0	0.0	14.5	28.5	10.3	10.7	24.3	10.9	11.1
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	131		301			789			889			
Approach Delay, s/veh	14.7		16.7			11.3			11.6			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.1	25.7	18.3		6.0	25.8	18.3					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	12.6	6.0	5.7		3.0	7.8	11.0					
Green Ext Time (p_c), s	0.0	9.5	0.4		0.0	6.4	0.8					

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	4789	14	0	2427	0	2
Future Vol, veh/h	4789	14	0	2427	0	2
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	97	97	97	97	97	97
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	4937	14	0	2502	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	2476
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	20
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	20
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		204.7	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	20	-	-	-		
HCM Lane V/C Ratio	0.103	-	-	-		
HCM Control Delay (s)	204.7	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	-		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1334	2856	3305	11	14	106
Future Volume (veh/h)	1334	2856	3305	11	14	106
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1404	3006	3479	0	15	112
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	720	4110	2885		154	137
Arrive On Green	0.21	0.82	0.58	0.00	0.09	0.09
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1404	3006	3479	0	15	112
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	24.6	31.4	68.3	0.0	0.9	8.2
Cycle Q Clear(g_c), s	24.6	31.4	68.3	0.0	0.9	8.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	720	4110	2885		154	137
V/C Ratio(X)	1.95	0.73	1.21		0.10	0.82
Avail Cap(c_a), veh/h	720	4110	2885		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	4.6	24.9	0.0	49.7	53.0
Incr Delay (d2), s/veh	432.0	1.2	92.9	0.0	0.1	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	53.4	6.0	48.3	0.0	0.4	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	478.7	5.8	117.8	0.0	49.8	57.5
LnGrp LOS	F	A	F		D	E
Approach Vol, veh/h		4410	3479	A	127	
Approach Delay, s/veh		156.3	117.8		56.6	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		102.6		15.4	29.0	73.6
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	24.6	* 49
Max Q Clear Time (g_c+I1), s		33.4		10.2	26.6	70.3
Green Ext Time (p_c), s		43.9		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			138.0			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	1129	91	59	1267	88	106	313	82	86	179	632
Future Volume (veh/h)	320	1129	91	59	1267	88	106	313	82	86	179	632
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.94	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	327	1152	93	60	1293	90	108	319	84	88	183	645
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	1560	126	230	1369	95	131	785	194	109	934	573
Arrive On Green	0.20	0.47	0.47	0.04	0.13	0.13	0.07	0.19	0.19	0.06	0.18	0.18
Sat Flow, veh/h	1781	3329	268	1781	3367	234	1781	4026	997	1781	5106	1430
Grp Volume(v), veh/h	327	614	631	60	681	702	108	267	136	88	183	645
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1824	1781	1702	1618	1781	1702	1430
Q Serve(g_s), s	25.3	39.3	39.4	4.6	53.2	53.5	8.4	9.6	10.4	6.8	4.3	25.6
Cycle Q Clear(g_c), s	25.3	39.3	39.4	4.6	53.2	53.5	8.4	9.6	10.4	6.8	4.3	25.6
Prop In Lane	1.00		0.15	1.00		0.13	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	351	833	853	230	723	742	131	664	315	109	934	573
V/C Ratio(X)	0.93	0.74	0.74	0.26	0.94	0.95	0.82	0.40	0.43	0.80	0.20	1.12
Avail Cap(c_a), veh/h	382	833	853	230	723	742	244	664	315	244	934	573
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.76	0.76	0.76	0.98	0.98	0.98	0.92	0.92	0.92
Uniform Delay (d), s/veh	55.3	30.2	30.2	60.5	59.0	59.1	64.0	49.2	49.5	64.9	48.5	44.1
Incr Delay (d2), s/veh	28.4	5.8	5.7	2.1	18.2	18.5	4.8	0.4	1.0	4.7	0.1	75.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	17.6	18.0	2.2	29.0	30.0	4.0	4.1	4.3	3.2	1.8	31.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.7	36.0	36.0	62.6	77.1	77.5	68.8	49.7	50.6	69.6	48.6	119.6
LnGrp LOS	F	D	D	E	E	E	E	D	D	E	D	F
Approach Vol, veh/h	1572			1443			511			916		
Approach Delay, s/veh	45.9			76.7			53.9			100.6		
Approach LOS	D			E			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.3	23.9	70.8	14.7	30.6	32.0	62.7					
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+I), s	19.8	12.4	6.6	41.4	10.4	27.6	27.3	55.5				
Green Ext Time (p_c), s	0.1	2.2	0.0	11.9	0.1	0.0	0.3	0.0				

Intersection Summary

HCM 6th Ctrl Delay	68.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑↑	↔
Traffic Volume (veh/h)	0	1102	113	43	181	0	0	0	0	145	201	1240
Future Volume (veh/h)	0	1102	113	43	181	0	0	0	0	145	201	1240
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1198	123	47	197	0				158	218	1348
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1615	165	72	2021	0				266	1660	537
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3346	333	1781	3647	0				770	4803	1553
Grp Volume(v), veh/h	0	653	668	47	197	0				376	0	1348
Grp Sat Flow(s),veh/h/ln	0	1777	1809	1781	1777	0				1832	1870	1553
Q Serve(g_s), s	0.0	49.0	49.2	3.6	3.5	0.0				23.7	0.0	48.4
Cycle Q Clear(g_c), s	0.0	49.0	49.2	3.6	3.5	0.0				23.7	0.0	48.4
Prop In Lane	0.00		0.18	1.00		0.00				0.42		1.00
Lane Grp Cap(c), veh/h	0	882	898	72	2021	0				633	1293	537
V/C Ratio(X)	0.00	0.74	0.74	0.65	0.10	0.00				0.59	0.00	2.51
Avail Cap(c_a), veh/h	0	882	898	313	2021	0				633	1293	537
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.75	0.75	0.82	0.82	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	49.9	50.0	66.2	13.8	0.0				37.7	0.0	45.8
Incr Delay (d2), s/veh	0.0	4.2	4.2	3.0	0.1	0.0				4.1	0.0	685.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.4	24.9	1.7	1.4	0.0				11.5	0.0	120.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	54.1	54.2	69.2	13.9	0.0				41.8	0.0	731.0
LnGrp LOS	A	D	D	E	B	A				D	A	F
Approach Vol, veh/h		1321			244						1724	
Approach Delay, s/veh		54.2			24.5						580.7	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	0.1	76.1		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.6	51.2		50.4		5.5						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	328.0
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2035 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	983	308	0	0	162	167	39	104	63	0	0	0
Future Volume (veh/h)	983	308	0	0	162	167	39	104	63	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	1057	331	0	0	174	180	42	112	68			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1522	1496	0	0	530	467	72	207	118			
Arrive On Green	0.44	0.80	0.00	0.00	0.30	0.30	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	1870	1566	932	2669	1518			
Grp Volume(v), veh/h	1057	331	0	0	174	180	82	72	68			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1566	1824	1777	1518			
Q Serve(g_s), s	19.7	3.4	0.0	0.0	6.1	7.3	3.5	3.1	3.5			
Cycle Q Clear(g_c), s	19.7	3.4	0.0	0.0	6.1	7.3	3.5	3.1	3.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.51		1.00			
Lane Grp Cap(c), veh/h	1522	1496	0	0	530	467	141	138	118			
V/C Ratio(X)	0.69	0.22	0.00	0.00	0.33	0.39	0.58	0.52	0.58			
Avail Cap(c_a), veh/h	1522	1496	0	0	580	511	390	380	325			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.58	0.58	0.00	0.00	1.00	1.00	0.96	0.96	0.96			
Uniform Delay (d), s/veh	18.0	1.9	0.0	0.0	21.8	22.3	35.6	35.5	35.6			
Incr Delay (d2), s/veh	0.8	0.2	0.0	0.0	0.1	0.2	1.3	1.1	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.1	0.5	0.0	0.0	2.4	2.5	1.6	1.4	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	2.1	0.0	0.0	22.0	22.5	37.0	36.6	37.2			
LnGrp LOS	B	A	A	A	C	C	D	D	D			
Approach Vol, veh/h	1388				354		222					
Approach Delay, s/veh	14.9				22.2		36.9					
Approach LOS	B				C		D					
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	68.9				40.1		28.8		11.1			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	53.1				22.1		* 26		17.1			
Max Q Clear Time (g_c+I1), s	5.4				21.7		9.3		5.5			
Green Ext Time (p_c), s	1.2				0.2		1.2		0.5			

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	165	2159	793	0	0	2860
Future Volume (veh/h)	165	2159	793	0	0	2860
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	168	0	809	0	0	2918
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	199		3181	0	215	5019
Arrive On Green	0.11	0.00	0.64	0.00	0.00	0.80
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	168	0	809	0	0	2918
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	10.2	0.0	7.7	0.0	0.0	19.2
Cycle Q Clear(g_c), s	10.2	0.0	7.7	0.0	0.0	19.2
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	199		3181	0	215	5019
V/C Ratio(X)	0.84		0.25	0.00	0.00	0.58
Avail Cap(c_a), veh/h	486		3181	0	742	5019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.00	0.48	0.00	0.00	0.60
Uniform Delay (d), s/veh	47.9	0.0	8.6	0.0	0.0	4.1
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	2.4	0.0	0.0	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.2	0.0	8.6	0.0	0.0	4.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	168	A	809			2918
Approach Delay, s/veh	49.2		8.6			4.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.7	75.1			92.8	17.2
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.8	20.0			70.2	30.0
Max Q Clear Time (g_c+I10), s	10.6	9.7			21.2	12.2
Green Ext Time (p_c), s	0.0	4.8			44.4	0.2

Intersection Summary

HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	262	2215	192	141	326	0	0	236	45
Future Volume (veh/h)	0	0	0	262	2215	192	141	326	0	0	236	45
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				270	2284	198	145	336	0	0	243	46
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				286	2575	225	172	1464	0	0	565	100
Arrive On Green				0.19	0.19	0.19	0.19	0.57	0.00	0.00	0.13	0.13
Sat Flow, veh/h				495	4453	390	1781	5274	0	0	4455	761
Grp Volume(v), veh/h				1006	836	910	145	336	0	0	190	99
Grp Sat Flow(s),veh/h/ln				1846	1702	1790	1781	1702	0	0	1702	1644
Q Serve(g_s), s				59.2	52.2	54.4	8.6	3.6	0.0	0.0	5.6	6.1
Cycle Q Clear(g_c), s				59.2	52.2	54.4	8.6	3.6	0.0	0.0	5.6	6.1
Prop In Lane				0.27		0.22	1.00		0.00	0.00		0.46
Lane Grp Cap(c), veh/h				1067	984	1035	172	1464	0	0	449	217
V/C Ratio(X)				0.94	0.85	0.88	0.84	0.23	0.00	0.00	0.42	0.46
Avail Cap(c_a), veh/h				1067	984	1035	188	1606	0	0	529	256
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.34	0.34	0.34	0.69	0.69	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				42.7	39.9	40.8	43.5	17.5	0.0	0.0	43.9	44.1
Incr Delay (d2), s/veh				7.4	3.3	4.0	17.8	0.1	0.0	0.0	0.4	1.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				31.4	24.6	27.1	4.3	1.3	0.0	0.0	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				50.1	43.2	44.8	61.3	17.6	0.0	0.0	44.3	45.1
LnGrp LOS				D	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2752			481			289	
Approach Delay, s/veh					46.3			30.7			44.6	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.5	20.9		69.5	37.4				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				11.6	* 17		63.6	34.6				
Max Q Clear Time (g_c+I1), s				10.6	8.1		61.2	5.6				
Green Ext Time (p_c), s				0.0	0.9		2.3	2.5				
Intersection Summary												
HCM 6th Ctrl Delay					44.0							
HCM 6th LOS					D							
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	241	2829	0	0	0	0	0	183	84
Future Volume (veh/h)	0	0	0	241	2829	0	0	0	0	0	183	84
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.93
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				251	2947	0				0	191	88
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				283	3568	0				0	613	247
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				386	5038	0				0	3664	1407
Grp Volume(v), veh/h				1204	1994	0				0	185	94
Grp Sat Flow(s),veh/h/ln				1851	1702	0				0	1702	1499
Q Serve(g_s), s				69.1	60.6	0.0				0.0	5.2	6.1
Cycle Q Clear(g_c), s				69.1	60.6	0.0				0.0	5.2	6.1
Prop In Lane				0.21		0.00				0.00		0.94
Lane Grp Cap(c), veh/h				1356	2494	0				0	597	263
V/C Ratio(X)				0.89	0.80	0.00				0.00	0.31	0.36
Avail Cap(c_a), veh/h				1356	2494	0				0	597	263
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				37.3	34.1	0.0				0.0	39.5	39.9
Incr Delay (d2), s/veh				8.9	2.8	0.0				0.0	1.3	3.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				37.4	28.4	0.0				0.0	2.3	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				46.2	36.9	0.0				0.0	40.9	43.6
LnGrp LOS				D	D	A				A	D	D
Approach Vol, veh/h					3198						279	
Approach Delay, s/veh					40.4						41.8	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.2		85.8						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				19.3		80.6						
Max Q Clear Time (g_c+I1), s				8.1		71.1						
Green Ext Time (p_c), s				0.4		5.1						
Intersection Summary												
HCM 6th Ctrl Delay											40.5	
HCM 6th LOS											D	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3036	156	97	94	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3036	156	97	94	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3130	161	100	97	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3630	183	299	326	0			
Arrive On Green				0.00	0.24	0.24	0.18	0.18	0.00			
Sat Flow, veh/h				0	5140	251	1703	1952	0			
Grp Volume(v), veh/h				0	2124	1167	105	92	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1819	1785	1777	0			
Q Serve(g_s), s				0.0	65.6	68.0	5.7	5.0	0.0			
Cycle Q Clear(g_c), s				0.0	65.6	68.0	5.7	5.0	0.0			
Prop In Lane				0.00		0.14	0.95		0.00			
Lane Grp Cap(c), veh/h				0	2485	1328	313	312	0			
V/C Ratio(X)				0.00	0.85	0.88	0.33	0.30	0.00			
Avail Cap(c_a), veh/h				0	2485	1328	313	312	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	36.2	37.1	39.7	39.4	0.0			
Incr Delay (d2), s/veh				0.0	4.0	8.5	2.9	2.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	31.1	36.1	2.8	2.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	40.2	45.6	42.6	41.8	0.0			
LnGrp LOS				A	D	D	D	D	A			
Approach Vol, veh/h					3291			197				
Approach Delay, s/veh					42.1			42.2				
Approach LOS					D			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						70.0		7.7				
Green Ext Time (p_c), s						10.1		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											42.1	
HCM 6th LOS											D	

SDCRAA ADP EIR
22: Columbia St & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	242	3269	0	0	0	0	0	139	49
Future Volume (veh/h)	0	0	0	242	3269	0	0	0	0	0	139	49
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				255	3441	0				0	146	52
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				249	3608	0				0	617	265
Arrive On Green				0.24	0.24	0.00				0.00	0.17	0.17
Sat Flow, veh/h				340	5086	0				0	3647	1527
Grp Volume(v), veh/h				1391	2305	0				0	146	52
Grp Sat Flow(s),veh/h/ln				1853	1702	0				0	1777	1527
Q Serve(g_s), s				80.7	72.7	0.0				0.0	3.9	3.2
Cycle Q Clear(g_c), s				80.7	72.7	0.0				0.0	3.9	3.2
Prop In Lane				0.18		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1360	2497	0				0	617	265
V/C Ratio(X)				1.02	0.92	0.00				0.00	0.24	0.20
Avail Cap(c_a), veh/h				1360	2497	0				0	617	265
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				41.7	38.6	0.0				0.0	39.2	38.9
Incr Delay (d2), s/veh				30.5	7.1	0.0				0.0	0.9	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				51.5	35.5	0.0				0.0	1.8	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				72.2	45.8	0.0				0.0	40.1	40.5
LnGrp LOS				F	D	A				A	D	D
Approach Vol, veh/h					3696						198	
Approach Delay, s/veh					55.7						40.2	
Approach LOS					E						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.0		86.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				19.1		80.7						
Max Q Clear Time (g_c+I1), s				5.9		82.7						
Green Ext Time (p_c), s				0.8		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											54.9	
HCM 6th LOS											D	

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3283	64	125	68	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3283	64	125	68	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3420	67	130	71	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3762	73	313	312	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5322	100	1781	1870	0			
Grp Volume(v), veh/h				0	2250	1237	130	71	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1850	1781	1777	0			
Q Serve(g_s), s				0.0	57.9	59.9	7.1	3.8	0.0			
Cycle Q Clear(g_c), s				0.0	57.9	59.9	7.1	3.8	0.0			
Prop In Lane				0.00		0.05	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2485	1350	313	312	0			
V/C Ratio(X)				0.00	0.91	0.92	0.42	0.23	0.00			
Avail Cap(c_a), veh/h				0	2485	1350	313	312	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	11.8	12.1	40.3	38.9	0.0			
Incr Delay (d2), s/veh				0.0	6.1	11.2	4.0	1.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	19.9	24.2	3.5	1.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	17.9	23.3	44.4	40.6	0.0			
LnGrp LOS				A	B	C	D	D	A			
Approach Vol, veh/h					3487			201				
Approach Delay, s/veh					19.8			43.1				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						61.9		9.1				
Green Ext Time (p_c), s						18.0		0.8				
Intersection Summary												
HCM 6th Ctrl Delay				21.1								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	159	552	3	94	0	0	0	11
Future Vol, veh/h	0	0	0	0	159	552	3	94	0	0	0	11
Conflicting Peds, #/hr	6	0	0	0	0	6	15	0	0	0	0	15
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	166	575	3	98	0	0	0	11
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	98	747	-	-	-	392
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	98	747	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	873	340	0	0	0	607
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	898	418	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	856	338	-	-	-	604
Mov Cap-2 Maneuver				-	-	-	856	338	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	881	415	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		19.9		11.1				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	338	-	-	604								
HCM Lane V/C Ratio	0.29	-	-	0.019								
HCM Control Delay (s)	19.9	-	-	11.1								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.2	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	730	31	2278	853	0
Future Volume (veh/h)	0	0	0	0	0	0	0	730	31	2278	853	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	768	33	2398	898	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	953	290	3625	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.19	0.19	0.48	0.64	0.00
Sat Flow, veh/h		0					0	5149	1519	5023	1826	0
Grp Volume(v), veh/h		0.0					0	768	33	2398	898	0
Grp Sat Flow(s),veh/h/ln							0	1662	1519	1674	1826	0
Q Serve(g_s), s							0.0	16.2	2.0	39.9	29.2	0.0
Cycle Q Clear(g_c), s							0.0	16.2	2.0	39.9	29.2	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	953	290	3625	1740	0
V/C Ratio(X)							0.00	0.81	0.11	0.66	0.52	0.00
Avail Cap(c_a), veh/h							0	956	291	3625	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh							0.0	42.5	36.8	18.2	6.2	0.0
Incr Delay (d2), s/veh							0.0	6.1	0.4	0.3	0.8	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	6.9	0.7	15.9	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	48.6	37.2	18.6	7.0	0.0
LnGrp LOS							A	D	D	B	A	A
Approach Vol, veh/h								801			3296	
Approach Delay, s/veh								48.1			15.4	
Approach LOS								D			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	83.8	26.2					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	43.6	* 21					68.8					
Max Q Clear Time (g_c+l1), s	41.9	18.2					31.2					
Green Ext Time (p_c), s	1.5	1.9					10.3					
Intersection Summary												
HCM 6th Ctrl Delay			21.8									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	123	1919	99	0	0	0	0	393	150	70	343	0
Future Volume (veh/h)	123	1919	99	0	0	0	0	393	150	70	343	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	127	1978	102				0	405	155	72	354	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	193	3204	997				0	595	214	102	1331	0
Arrive On Green	0.21	0.21	0.21				0.00	0.16	0.16	0.11	0.52	0.00
Sat Flow, veh/h	298	4961	1544				0	3815	1312	1781	5274	0
Grp Volume(v), veh/h	790	1315	102				0	376	184	72	354	0
Grp Sat Flow(s),veh/h/ln	1855	1702	1544				0	1702	1554	1781	1702	0
Q Serve(g_s), s	42.9	38.3	5.8				0.0	11.4	12.3	4.3	4.2	0.0
Cycle Q Clear(g_c), s	42.9	38.3	5.8				0.0	11.4	12.3	4.3	4.2	0.0
Prop In Lane	0.16		1.00				0.00		0.84	1.00		0.00
Lane Grp Cap(c), veh/h	1198	2198	997				0	555	254	102	1331	0
V/C Ratio(X)	0.66	0.60	0.10				0.00	0.68	0.72	0.70	0.27	0.00
Avail Cap(c_a), veh/h	1198	2198	997				0	777	355	236	2024	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	32.2	30.4	17.6				0.0	43.3	43.7	47.8	20.5	0.0
Incr Delay (d2), s/veh	0.3	0.1	0.0				0.0	1.6	4.8	2.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.3	17.4	2.1				0.0	4.9	5.0	1.9	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	30.5	17.7				0.0	44.9	48.5	50.5	20.5	0.0
LnGrp LOS	C	C	B				A	D	D	D	C	A
Approach Vol, veh/h		2207						560			426	
Approach Delay, s/veh		30.6						46.1			25.6	
Approach LOS		C						D			C	
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		75.9		34.1			10.7	23.3				
Change Period (Y+Rc), s		4.9		5.4			4.4	* 5.4				
Max Green Setting (Gmax), s		56.1		43.6			14.6	* 25				
Max Q Clear Time (g_c+I1), s		44.9		6.2			6.3	14.3				
Green Ext Time (p_c), s		10.4		1.9			0.0	2.9				

Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	2140	41	0	0	0	0	0	0	231	263	0
Future Volume (veh/h)	0	2140	41	0	0	0	0	0	0	231	263	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2206	42							238	271	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3285	62							487	931	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5324	98							1781	3572	0
Grp Volume(v), veh/h	0	1455	793							238	271	0
Grp Sat Flow(s),veh/h/ln	0	1702	1849							1781	1702	0
Q Serve(g_s), s	0.0	43.2	43.4							14.0	8.2	0.0
Cycle Q Clear(g_c), s	0.0	43.2	43.4							14.0	8.2	0.0
Prop In Lane	0.00		0.05							1.00		0.00
Lane Grp Cap(c), veh/h	0	2169	1178							487	931	0
V/C Ratio(X)	0.00	0.67	0.67							0.49	0.29	0.00
Avail Cap(c_a), veh/h	0	2169	1178							487	931	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	32.8	32.9							42.7	40.1	0.0
Incr Delay (d2), s/veh	0.0	1.7	3.1							3.5	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.1	22.4							7.2	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.5	36.0							46.2	40.9	0.0
LnGrp LOS	A	C	D							D	D	A
Approach Vol, veh/h		2248									509	
Approach Delay, s/veh		35.0									43.3	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		75.0	35.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		70.1	30.1									
Max Q Clear Time (g_c+l1), s		45.4	16.0									
Green Ext Time (p_c), s		8.1	1.2									
Intersection Summary												
HCM 6th Ctrl Delay			36.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	79	2897	0	0	0	0	0	100	235	0	0	0
Future Volume (veh/h)	79	2897	0	0	0	0	0	100	235	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.89			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	81	2987	0				0	103	242			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	89	3507	0				0	405	323			
Arrive On Green	0.23	0.23	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	131	5306	0				0	1870	1417			
Grp Volume(v), veh/h	1155	1913	0				0	103	242			
Grp Sat Flow(s),veh/h/ln	1864	1702	0				0	1777	1417			
Q Serve(g_s), s	66.4	58.8	0.0				0.0	5.2	17.5			
Cycle Q Clear(g_c), s	66.4	58.8	0.0				0.0	5.2	17.5			
Prop In Lane	0.07		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1272	2324	0				0	405	323			
V/C Ratio(X)	0.91	0.82	0.00				0.00	0.25	0.75			
Avail Cap(c_a), veh/h	1272	2324	0				0	405	323			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	39.2	36.3	0.0				0.0	34.8	39.5			
Incr Delay (d2), s/veh	11.0	3.5	0.0				0.0	1.5	14.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	66.9	27.8	0.0				0.0	2.5	7.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.2	39.7	0.0				0.0	36.3	54.2			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h	3068					345						
Approach Delay, s/veh	43.7					48.8						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	80.0					30.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	75.1					25.1						
Max Q Clear Time (g_c+I1), s	68.4					19.5						
Green Ext Time (p_c), s	6.5					1.1						
Intersection Summary												
HCM 6th Ctrl Delay			44.2									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	3275	123	0	0	0	0	0	0	138	252	0
Future Volume (veh/h)	0	3275	123	0	0	0	0	0	0	138	252	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3342	126							141	257	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3677	137							325	649	0
Arrive On Green	0.00	0.24	0.24							0.06	0.06	0.00
Sat Flow, veh/h	0	5218	188							1781	3647	0
Grp Volume(v), veh/h	0	2238	1230							141	257	0
Grp Sat Flow(s),veh/h/ln	0	1702	1833							1781	1777	0
Q Serve(g_s), s	0.0	70.2	72.0							8.4	7.7	0.0
Cycle Q Clear(g_c), s	0.0	70.2	72.0							8.4	7.7	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2479	1335							325	649	0
V/C Ratio(X)	0.00	0.90	0.92							0.43	0.40	0.00
Avail Cap(c_a), veh/h	0	2479	1335							325	649	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	38.0	38.7							46.2	45.8	0.0
Incr Delay (d2), s/veh	0.0	5.9	11.8							4.2	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	34.0	39.7							4.4	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	44.0	50.6							50.3	47.6	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		3468									398	
Approach Delay, s/veh		46.3									48.6	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		85.0	25.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		80.1	20.1									
Max Q Clear Time (g_c+l1), s		74.0	10.4									
Green Ext Time (p_c), s		6.0	1.5									
Intersection Summary												
HCM 6th Ctrl Delay			46.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	137	2854	0	0	0	0	0	89	38	0	0	0
Future Volume (veh/h)	137	2854	0	0	0	0	0	89	38	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	144	3004	0				0	94	40			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	162	3622	0				0	474	191			
Arrive On Green	0.24	0.24	0.00				0.00	0.19	0.19			
Sat Flow, veh/h	226	5206	0				0	2564	997			
Grp Volume(v), veh/h	1185	1963	0				0	66	68			
Grp Sat Flow(s),veh/h/ln	1859	1702	0				0	1777	1691			
Q Serve(g_s), s	67.7	59.7	0.0				0.0	3.4	3.7			
Cycle Q Clear(g_c), s	67.7	59.7	0.0				0.0	3.4	3.7			
Prop In Lane	0.12		0.00				0.00		0.59			
Lane Grp Cap(c), veh/h	1337	2448	0				0	341	324			
V/C Ratio(X)	0.89	0.80	0.00				0.00	0.19	0.21			
Avail Cap(c_a), veh/h	1337	2448	0				0	341	324			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	37.6	34.6	0.0				0.0	37.3	37.4			
Incr Delay (d2), s/veh	9.0	2.9	0.0				0.0	1.3	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	28.2	0.0				0.0	1.6	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	37.5	0.0				0.0	38.6	38.9			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h	3148					134						
Approach Delay, s/veh	40.9					38.7						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	84.0					26.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	79.1					21.1						
Max Q Clear Time (g_c+I1), s	69.7					5.7						
Green Ext Time (p_c), s	9.1					0.6						
Intersection Summary												
HCM 6th Ctrl Delay			40.8									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	33	1001	907	115	108	233
Future Volume (veh/h)	33	1001	907	115	108	233
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	35	1076	975	124	116	251
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	44	3649	2991	379	613	281
Arrive On Green	0.02	0.73	1.00	1.00	0.18	0.18
Sat Flow, veh/h	1781	5149	4631	566	3456	1585
Grp Volume(v), veh/h	35	1076	725	374	116	251
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1710	1728	1585
Q Serve(g_s), s	2.3	8.7	0.0	0.0	3.4	18.3
Cycle Q Clear(g_c), s	2.3	8.7	0.0	0.0	3.4	18.3
Prop In Lane	1.00			0.33	1.00	1.00
Lane Grp Cap(c), veh/h	44	3649	2226	1145	613	281
V/C Ratio(X)	0.79	0.29	0.33	0.33	0.19	0.89
Avail Cap(c_a), veh/h	160	3649	2226	1145	1233	566
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	57.2	5.4	0.0	0.0	41.3	47.4
Incr Delay (d2), s/veh	10.0	0.2	0.4	0.7	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.5	0.1	0.2	1.5	15.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.2	5.6	0.4	0.7	41.4	51.4
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1111	1099		367	
Approach Delay, s/veh		7.5	0.5		48.2	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		92.2		25.8	7.3	84.8
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 65		42.1	10.6	50.2
Max Q Clear Time (g_c+I1), s		10.7		20.3	4.3	2.0
Green Ext Time (p_c), s		24.6		0.7	0.0	21.8
Intersection Summary						
HCM 6th Ctrl Delay			10.3			
HCM 6th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	133	1058	30	24	1046	17	21	0	13	9	0	12
Future Volume (veh/h)	133	1058	30	24	1046	17	21	0	13	9	0	12
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		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	1091	31	25	1078	0	18	6	13	9	0	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	682	3453	98	60	1660		42	11	25	277	0	121
Arrive On Green	0.77	1.00	1.00	0.03	0.33	0.00	0.02	0.02	0.02	0.08	0.00	0.08
Sat Flow, veh/h	1781	4978	141	1781	4985	1585	1781	481	1042	3456	0	1508
Grp Volume(v), veh/h	137	728	394	25	1078	0	18	0	19	9	0	12
Grp Sat Flow(s), veh/h/ln	1781	1662	1796	1781	1662	1585	1781	0	1523	1728	0	1508
Q Serve(g_s), s	2.5	0.0	0.0	1.6	21.7	0.0	1.2	0.0	1.5	0.3	0.0	0.9
Cycle Q Clear(g_c), s	2.5	0.0	0.0	1.6	21.7	0.0	1.2	0.0	1.5	0.3	0.0	0.9
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.68	1.00		1.00
Lane Grp Cap(c), veh/h	682	2305	1246	60	1660		42	0	36	277	0	121
V/C Ratio(X)	0.20	0.32	0.32	0.41	0.65		0.42	0.00	0.52	0.03	0.00	0.10
Avail Cap(c_a), veh/h	682	2305	1246	100	1660		92	0	79	996	0	434
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	55.9	33.5	0.0	56.8	0.0	56.9	50.1	0.0	50.3
Incr Delay (d2), s/veh	0.1	0.3	0.6	1.7	2.0	0.0	2.5	0.0	4.3	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 BackOfQ(50%), veh/ln	0.9	0.1	0.2	0.7	8.7	0.0	0.6	0.0	0.6	0.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.9	0.3	0.6	57.5	35.5	0.0	59.3	0.0	61.2	50.1	0.0	50.5
LnGrp LOS	A	A	A	E	D		E	A	E	D	A	D
Approach Vol, veh/h	1259			1103			37			21		
Approach Delay, s/veh	1.4			36.0			60.3			50.3		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	87.5			14.3	50.8	45.1		7.7				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	60.6	51.4		34.0	18.6	* 39		6.1				
Max Q Clear Time (g_c+I), s	13.6	2.0		2.9	4.5	23.7		3.5				
Green Ext Time (p_c), s	0.0	18.0		0.0	0.1	9.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.5

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	276	187	465	1183	0	171	46	369	0	36	184
Future Volume (veh/h)	293	276	187	465	1183	0	171	46	369	0	36	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	326	307	208	517	1314	0	190	51	0	0	40	204
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	624	3017	1053	193	1900	0	259	140		0	178	255
Arrive On Green	0.35	0.61	0.61	0.06	0.30	0.00	0.07	0.07	0.00	0.00	0.10	0.10
Sat Flow, veh/h	1781	4985	1544	3456	6537	0	3456	1870	1585	0	1870	2676
Grp Volume(v), veh/h	326	307	208	517	1314	0	190	51	0	0	40	204
Grp Sat Flow(s),veh/h/ln	1781	1662	1544	1728	1570	0	1728	1870	1585	0	1870	1338
Q Serve(g_s), s	17.2	3.1	5.9	6.6	21.8	0.0	6.4	3.1	0.0	0.0	2.3	8.8
Cycle Q Clear(g_c), s	17.2	3.1	5.9	6.6	21.8	0.0	6.4	3.1	0.0	0.0	2.3	8.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	624	3017	1053	193	1900	0	259	140		0	178	255
V/C Ratio(X)	0.52	0.10	0.20	2.67	0.69	0.00	0.73	0.36		0.00	0.22	0.80
Avail Cap(c_a), veh/h	624	3017	1053	193	1900	0	1084	586		0	255	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	9.8	7.0	55.7	36.3	0.0	53.4	51.9	0.0	0.0	49.3	52.3
Incr Delay (d2), s/veh	0.4	0.1	0.4	755.0	0.2	0.0	1.4	0.5	0.0	0.0	0.6	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 BackOfQ(50%),veh/ln	7.1	1.0	2.4	23.1	8.0	0.0	2.8	1.4	0.0	0.0	1.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	9.9	7.4	810.7	36.5	0.0	54.8	52.4	0.0	0.0	50.0	60.3
LnGrp LOS	C	A	A	F	D	A	D	D		A	D	E
Approach Vol, veh/h	841		1831				241		A	244		
Approach Delay, s/veh	17.4		255.1				54.3			58.6		
Approach LOS	B		F				D			E		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	1.0	77.1	16.1		47.0	41.1	13.7					
Change Period (Y+Rc), s	4.4	5.7	4.9		5.7	* 5.4	4.9					
Max Green Setting (Gmax), s	6.6	38.4	16.1		9.6	* 36	37.0					
Max Q Clear Time (g_c+1/3), s	13.6	7.9	10.8		19.2	23.8	8.4					
Green Ext Time (p_c), s	0.0	5.5	0.4		0.0	9.8	0.5					

Intersection Summary

HCM 6th Ctrl Delay 161.3

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	0	35	11	7	265	22	279	12	393	324	41
Future Volume (veh/h)	51	0	35	11	7	265	22	279	12	393	324	41
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		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	12	37	0	0	297	23	294	13	414	341	43
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	23	72	0	263	440	141	757	33	476	1286	161
Arrive On Green	0.06	0.06	0.06	0.00	0.00	0.14	0.08	0.22	0.22	0.27	0.41	0.41
Sat Flow, veh/h	1781	400	1232	0	1870	3136	1781	3457	152	1781	3161	395
Grp Volume(v), veh/h	46	0	49	0	0	297	23	150	157	414	190	194
Grp Sat Flow(s),veh/h/ln	1781	0	1632	0	1870	1568	1781	1777	1832	1781	1777	1778
Q Serve(g_s), s	1.3	0.0	1.5	0.0	0.0	4.6	0.6	3.7	3.7	11.3	3.6	3.7
Cycle Q Clear(g_c), s	1.3	0.0	1.5	0.0	0.0	4.6	0.6	3.7	3.7	11.3	3.6	3.7
Prop In Lane	1.00		0.76	0.00		1.00	1.00		0.08	1.00		0.22
Lane Grp Cap(c), veh/h	104	0	95	0	263	440	141	389	401	476	723	724
V/C Ratio(X)	0.44	0.00	0.52	0.00	0.00	0.67	0.16	0.39	0.39	0.87	0.26	0.27
Avail Cap(c_a), veh/h	141	0	129	0	1070	1794	176	1016	1048	597	1437	1438
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	23.2	0.0	0.0	20.7	21.8	16.9	16.9	17.7	10.0	10.0
Incr Delay (d2), s/veh	2.2	0.0	3.2	0.0	0.0	0.7	0.2	0.5	0.5	9.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.6	0.0	0.0	1.6	0.2	1.3	1.4	5.1	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	0.0	26.4	0.0	0.0	21.4	22.0	17.4	17.4	27.3	10.1	10.2
LnGrp LOS	C	A	C	A	A	C	C	B	B	C	B	B
Approach Vol, veh/h	95		297			330			798			
Approach Delay, s/veh	25.9		21.4			17.7			19.0			
Approach LOS	C		C			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.5	15.1	7.0		8.0	24.6	11.1					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	7.0	29.0	4.0		5.0	41.0	29.0					
Max Q Clear Time (g_c+I1), s	13.3	5.7	3.5		2.6	5.7	6.6					
Green Ext Time (p_c), s	0.3	1.3	0.0		0.0	1.9	0.7					

Intersection Summary

HCM 6th Ctrl Delay 19.6

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	199	8	8	109	157	209
Future Volume (veh/h)	199	8	8	109	157	209
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	225	0	9	0	173	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	840	441	678		316	
Arrive On Green	0.24	0.00	0.36	0.00	0.09	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	225	0	9	0	173	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	2.0	0.0	0.1	0.0	1.9	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.1	0.0	1.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	840	441	678		316	
V/C Ratio(X)	0.27	0.00	0.01		0.55	
Avail Cap(c_a), veh/h	1014	532	678		1163	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.0	0.0	7.9	0.0	16.8	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.2	0.0	7.9	0.0	18.3	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		225	9	A	173	A
Approach Delay, s/veh		12.2	7.9		18.3	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.1		7.5		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+l1), s		4.0		3.9		2.1
Green Ext Time (p_c), s		0.4		0.3		0.0

Intersection Summary

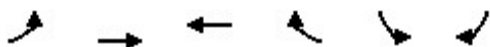
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

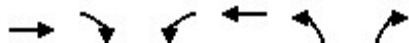
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	156	94	0	1	1
Future Vol, veh/h	13	156	94	0	1	1
Conflicting Peds, #/hr	6	0	0	6	0	1
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	184	111	0	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	117	0	-	0	239	63
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1469	-	-	-	728	988
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1461	-	-	-	711	981
Mov Cap-2 Maneuver	-	-	-	-	711	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	885	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		9.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1461	-	-	-	824	
HCM Lane V/C Ratio	0.01	-	-	-	0.003	
HCM Control Delay (s)	7.5	0	-	-	9.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	3041	2978	0	0	0
Future Volume (veh/h)	0	3041	2978	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	3305	3237	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7451
Grp Volume(v), veh/h	0	3305	3237	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	773	733
V/C Ratio(X)	0.00	1.28	1.26	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	773	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	131.0	119.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	27.6	25.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	144.5	132.8	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		3305	3237	1077	1255	504
Approach Delay, s/veh		144.5	132.8		8.1	
Approach LOS		F	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (veh/h)	3530	44	101	1117	34	126
Future Volume (veh/h)	3530	44	101	1117	34	126
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3639	45	104	1152	35	130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4545	1081	154	5060	192	154
Arrive On Green	0.72	0.72	0.09	1.00	0.11	0.11
Sat Flow, veh/h	6537	1493	3456	6537	1781	1427
Grp Volume(v), veh/h	3639	45	104	1152	35	130
Grp Sat Flow(s),veh/h/ln	1570	1493	1728	1570	1781	1427
Q Serve(g_s), s	44.9	1.0	3.4	0.0	2.1	10.6
Cycle Q Clear(g_c), s	44.9	1.0	3.4	0.0	2.1	10.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4545	1081	154	5060	192	154
V/C Ratio(X)	0.80	0.04	0.67	0.23	0.18	0.84
Avail Cap(c_a), veh/h	4545	1081	193	5060	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.99	0.99	1.00	1.00
Uniform Delay (d), s/veh	10.7	4.6	52.9	0.0	47.9	51.7
Incr Delay (d2), s/veh	0.1	0.0	3.5	0.1	0.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.3	1.5	0.0	1.0	4.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.9	4.7	56.4	0.1	48.1	56.4
LnGrp LOS	B	A	E	A	D	E
Approach Vol, veh/h	3684			1256	165	
Approach Delay, s/veh	10.8			4.8	54.6	
Approach LOS	B			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	90.7			100.4	17.6	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	64.8			75.8	32.0	
Max Q Clear Time (g_c+1.5), s	46.9			2.0	12.6	
Green Ext Time (p_c), s	0.0	17.9		27.3	0.2	

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK



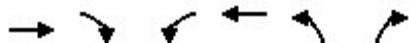
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰	↑	
Traffic Volume (veh/h)	15	3463	1	8	777	99	1	0	1	5	0	5
Future Volume (veh/h)	15	3463	1	8	777	99	1	0	1	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	3607	1	8	809	103	1	0	1	5	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	25	4151	1	60	4701	588	62	11	28	111	0	55
Arrive On Green	0.03	1.00	1.00	0.03	0.83	0.83	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1781	5147	1	1781	5687	711	463	308	771	1381	0	1545
Grp Volume(v), veh/h	16	2329	1279	8	668	244	2	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	1826	1781	1570	1687	1542	0	0	1381	0	1545
Q Serve(g_s), s	1.0	0.0	0.0	0.5	3.4	3.5	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.5	3.4	3.5	0.1	0.0	0.0	0.4	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.42	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	25	2680	1472	60	3894	1394	101	0	0	111	0	55
V/C Ratio(X)	0.65	0.87	0.87	0.13	0.17	0.18	0.02	0.00	0.00	0.05	0.00	0.09
Avail Cap(c_a), veh/h	80	2680	1472	60	3894	1394	444	0	0	436	0	419
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	0.48	0.98	0.98	0.98	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	0.0	0.0	55.3	2.1	2.1	54.9	0.0	0.0	55.0	0.0	55.0
Incr Delay (d2), s/veh	5.0	2.1	3.7	0.4	0.1	0.3	0.0	0.0	0.0	0.1	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 BackOfQ(50%),veh/ln	0.5	0.8	1.5	0.2	0.6	0.7	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	2.1	3.7	55.7	2.2	2.3	54.9	0.0	0.0	55.1	0.0	55.3
LnGrp LOS	E	A	A	E	A	A	D	A	A	E	A	E
Approach Vol, veh/h	3624			920			2			10		
Approach Delay, s/veh	2.9			2.7			54.9			55.2		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	100.5			9.1	6.0	102.8		9.1				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	5.3	66.1		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	3.0	5.5		2.1				
Green Ext Time (p_c), s	0.0	65.1		0.0	0.0	16.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	3.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3449	11	26	981	0	27
Future Volume (veh/h)	3449	11	26	981	0	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.93	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3556	11	27	1011	0	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4113	13	39	4346	0	35
Arrive On Green	0.80	0.80	0.02	0.87	0.00	0.02
Sat Flow, veh/h	5293	16	1781	5149	0	1538
Grp Volume(v), veh/h	2302	1265	27	1011	0	29
Grp Sat Flow(s), veh/h/ln	1662	1822	1781	1662	0	1593
Q Serve(g_s), s	40.7	41.0	1.4	3.0	0.0	1.7
Cycle Q Clear(g_c), s	40.7	41.0	1.4	3.0	0.0	1.7
Prop In Lane		0.01	1.00		0.00	0.97
Lane Grp Cap(c), veh/h	2665	1461	39	4346	0	36
V/C Ratio(X)	0.86	0.87	0.70	0.23	0.00	0.80
Avail Cap(c_a), veh/h	2667	1462	90	4492	0	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.8	5.9	44.3	0.9	0.0	44.4
Incr Delay (d2), s/veh	3.7	6.6	8.1	0.1	0.0	31.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	8.7	0.7	0.0	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.5	12.4	52.4	1.0	0.0	75.7
LnGrp LOS	A	B	D	A	A	E
Approach Vol, veh/h	3567			1038	29	
Approach Delay, s/veh	10.6			2.4	75.7	
Approach LOS	B			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.4	78.4		84.7	6.5	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	1.6	73.2		82.2	18.2	
Max Q Clear Time (g_c+I), s	13.4	43.0		5.0	3.7	
Green Ext Time (p_c), s	0.0	30.1		25.3	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			9.1			
HCM 6th LOS			A			

Intersection						
Int Delay, s/veh	170					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	419	0	0	1411	1007
Future Vol, veh/h	0	419	0	0	1411	1007
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	446	0	0	1501	1071

Major/Minor	Minor2		Major2	
Conflicting Flow All	2042	1291	-	0
Stage 1	2042	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	89	~ 132	-	-
Stage 1	53	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	88	~ 131	-	-
Mov Cap-2 Maneuver	88	-	-	-
Stage 1	53	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$ 1151.3		0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	131	-	-
HCM Lane V/C Ratio	-	3.403	-	-
HCM Control Delay (s)	\$ 1151.3	-	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	43.2	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2035 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	647	44	53	653	243	38	41	29	201	42	166
Future Volume (veh/h)	112	647	44	53	653	243	38	41	29	201	42	166
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	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	660	45	54	666	248	39	42	30	205	43	169
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	2179	660	70	1966	597	350	407	313	545	681	602
Arrive On Green	0.03	0.14	0.14	0.04	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1781	5106	1548	1781	5106	1550	754	1061	818	1318	1777	1571
Grp Volume(v), veh/h	114	660	45	54	666	248	54	0	57	205	43	169
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1550	1087	0	1546	1318	1777	1571
Q Serve(g_s), s	6.5	11.8	2.6	3.1	9.4	11.9	1.9	0.0	2.4	12.0	1.6	7.6
Cycle Q Clear(g_c), s	6.5	11.8	2.6	3.1	9.4	11.9	9.5	0.0	2.4	14.4	1.6	7.6
Prop In Lane	1.00		1.00	1.00		1.00	0.72		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	144	2179	660	70	1966	597	477	0	593	545	681	602
V/C Ratio(X)	0.79	0.30	0.07	0.78	0.34	0.42	0.11	0.00	0.10	0.38	0.06	0.28
Avail Cap(c_a), veh/h	272	2179	660	185	1966	597	477	0	593	545	681	602
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.94	0.94	0.94	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	30.2	26.2	48.6	22.2	23.0	22.9	0.0	20.1	24.7	19.9	21.7
Incr Delay (d2), s/veh	3.4	0.3	0.2	6.4	0.4	2.0	0.5	0.0	0.3	1.2	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 BackOfQ(50%),veh/ln	3.0	5.2	0.9	1.4	3.6	4.4	1.0	0.0	0.9	3.9	0.7	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.2	30.5	26.4	55.0	22.6	25.0	23.3	0.0	20.5	26.0	20.0	22.5
LnGrp LOS	D	C	C	D	C	C	C	A	C	C	B	C
Approach Vol, veh/h		819			968			111			417	
Approach Delay, s/veh		33.3			25.0			21.9			23.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	49.6		44.0	12.6	45.4		44.0				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	10.6	* 37		39.1	15.6	31.9		39.1				
Max Q Clear Time (g_c+I1), s	5.1	13.8		16.4	8.5	13.9		11.5				
Green Ext Time (p_c), s	0.0	7.3		4.6	0.1	9.8		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			27.6									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	391	0	0	455	417	0	0	0	402	0	98
Future Volume (veh/h)	68	391	0	0	455	417	0	0	0	402	0	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	430	0	0	500	0	0	0	0	275	234	108
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	2317	0	2	1972		0	2	2	410	280	129
Arrive On Green	0.05	0.65	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.23	0.23	0.23
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	1767	1208	557
Grp Volume(v), veh/h	75	430	0	0	500	0	0	0	0	275	0	342
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1767	0	1765
Q Serve(g_s), s	4.2	4.9	0.0	0.0	12.3	0.0	0.0	0.0	0.0	14.4	0.0	18.8
Cycle Q Clear(g_c), s	4.2	4.9	0.0	0.0	12.3	0.0	0.0	0.0	0.0	14.4	0.0	18.8
Prop In Lane	1.00		0.00	1.00		1.00	0.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	96	2317	0	2	1972		0	2	2	410	0	410
V/C Ratio(X)	0.78	0.19	0.00	0.00	0.25		0.00	0.00	0.00	0.67	0.00	0.83
Avail Cap(c_a), veh/h	176	2317	0	176	1972		0	182	154	643	0	642
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.80	0.00	0.80
Uniform Delay (d), s/veh	47.6	7.0	0.0	0.0	23.6	0.0	0.0	0.0	0.0	35.6	0.0	37.3
Incr Delay (d2), s/veh	5.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.6	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.6	0.0	0.0	5.7	0.0	0.0	0.0	0.0	6.2	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	7.2	0.0	0.0	23.8	0.0	0.0	0.0	0.0	36.2	0.0	39.7
LnGrp LOS	D	A	A	A	C		A	A	A	D	A	D
Approach Vol, veh/h		505			500	A		0			617	
Approach Delay, s/veh		14.0			23.8			0.0			38.1	
Approach LOS		B			C						D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	72.4		29.6	9.9	62.5		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	10.1	* 25		37.1	10.1	23.8		9.9				
Max Q Clear Time (g_c+I1), s	0.0	6.9		20.8	6.2	14.3		0.0				
Green Ext Time (p_c), s	0.0	5.7		1.7	0.0	3.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	251	191	108	268	151	208	1028	111	159	1115	99
Future Volume (veh/h)	242	251	191	108	268	151	208	1028	111	159	1115	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	252	261	199	112	279	157	217	1071	116	166	1161	103
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	246	374	273	137	458	293	275	1622	176	209	1716	749
Arrive On Green	0.14	0.19	0.19	0.08	0.13	0.13	0.08	0.50	0.50	0.06	0.48	0.48
Sat Flow, veh/h	1781	1927	1406	1781	3554	1533	3456	3231	350	3456	3554	1551
Grp Volume(v), veh/h	252	240	220	112	279	157	217	589	598	166	1161	103
Grp Sat Flow(s),veh/h/ln	1781	1777	1556	1781	1777	1533	1728	1777	1804	1728	1777	1551
Q Serve(g_s), s	16.0	14.6	15.4	7.2	8.6	7.2	7.2	28.6	28.7	5.5	29.1	2.4
Cycle Q Clear(g_c), s	16.0	14.6	15.4	7.2	8.6	7.2	7.2	28.6	28.7	5.5	29.1	2.4
Prop In Lane	1.00		0.90	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	246	345	302	137	458	293	275	892	905	209	1716	749
V/C Ratio(X)	1.03	0.70	0.73	0.81	0.61	0.53	0.79	0.66	0.66	0.80	0.68	0.14
Avail Cap(c_a), veh/h	246	456	400	229	888	479	411	892	905	209	1716	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	43.5	43.9	52.7	47.7	21.5	52.4	21.5	21.5	53.8	23.0	5.2
Incr Delay (d2), s/veh	64.2	1.5	2.7	4.2	0.5	0.5	3.1	3.8	3.8	17.7	2.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	6.5	6.1	3.4	3.8	2.6	3.2	12.5	12.7	2.9	12.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	114.2	45.0	46.6	56.9	48.2	22.1	55.6	25.3	25.3	71.4	25.2	5.6
LnGrp LOS	F	D	D	E	D	C	E	C	C	E	C	A
Approach Vol, veh/h	712		548			1404			1430			
Approach Delay, s/veh	70.0		42.5			30.0			29.2			
Approach LOS	E		D			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	63.5	13.4	27.7	13.6	61.3	21.2	19.9				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	45	* 45	14.9	29.8	13.8	38.2	16.0	* 29				
Max Q Clear Time (g_c+11), s	30.7	30.7	9.2	17.4	9.2	31.1	18.0	10.6				
Green Ext Time (p_c), s	0.0	2.8	0.0	0.9	0.1	2.4	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	38.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	597	168	252	255	76	190	190	609	124	247	88
Future Volume (veh/h)	78	597	168	252	255	76	190	190	609	124	247	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	642	181	271	274	82	204	204	655	133	266	95
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	955	616	337	573	467	233	1237	662	161	1093	401
Arrive On Green	0.06	0.27	0.27	0.10	0.31	0.31	0.13	0.35	0.35	0.09	0.31	0.31
Sat Flow, veh/h	1781	3554	1520	3456	1870	1527	1781	3554	1457	1781	3554	1305
Grp Volume(v), veh/h	84	642	181	271	274	82	204	204	655	133	266	95
Grp Sat Flow(s),veh/h/ln	1781	1777	1520	1728	1870	1527	1781	1777	1457	1781	1777	1305
Q Serve(g_s), s	5.6	19.3	9.7	9.2	14.3	4.7	13.5	4.8	41.7	8.8	6.7	6.5
Cycle Q Clear(g_c), s	5.6	19.3	9.7	9.2	14.3	4.7	13.5	4.8	41.7	8.8	6.7	6.5
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	107	955	616	337	573	467	233	1237	662	161	1093	401
V/C Ratio(X)	0.79	0.67	0.29	0.81	0.48	0.18	0.87	0.16	0.99	0.83	0.24	0.24
Avail Cap(c_a), veh/h	446	1186	715	865	624	510	446	1237	662	446	1186	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.5	39.1	24.5	53.0	33.8	30.5	51.1	27.0	33.3	53.6	31.0	31.0
Incr Delay (d2), s/veh	4.7	1.2	0.3	1.7	0.3	0.1	4.0	0.1	32.4	4.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	8.6	3.6	4.1	6.5	1.8	6.3	2.0	24.4	4.1	2.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	40.3	24.8	54.7	34.1	30.6	55.1	27.1	65.7	57.7	31.1	31.1
LnGrp LOS	E	D	C	D	C	C	E	C	E	E	C	C
Approach Vol, veh/h		907			627			1063			494	
Approach Delay, s/veh		39.1			42.6			56.3			38.2	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.1	38.1	21.1	43.6	12.6	42.6	16.2	48.4				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	11.2	21.3	15.5	8.7	7.6	16.3	10.8	43.7				
Green Ext Time (p_c), s	0.5	5.8	0.2	1.4	0.1	1.3	0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			45.6									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	98	0	121	59	0	80	26	690	27	71	588	20
Future Volume (veh/h)	98	0	121	59	0	80	26	690	27	71	588	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	0	138	67	0	91	30	784	31	81	668	23
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	37	241	511	0	551	49	1745	69	104	1914	66
Arrive On Green	0.30	0.00	0.30	0.30	0.00	0.30	0.03	0.35	0.35	0.06	0.38	0.38
Sat Flow, veh/h	525	123	805	1224	0	1532	1781	5038	199	1781	5067	174
Grp Volume(v), veh/h	249	0	0	67	0	91	30	529	286	81	448	243
Grp Sat Flow(s), veh/h/ln	1452	0	0	1224	0	1532	1781	1702	1832	1781	1702	1837
Q Serve(g_s), s	4.5	0.0	0.0	0.0	0.0	2.0	0.8	6.0	6.0	2.2	4.7	4.7
Cycle Q Clear(g_c), s	6.9	0.0	0.0	2.0	0.0	2.0	0.8	6.0	6.0	2.2	4.7	4.7
Prop In Lane	0.45		0.55	1.00		1.00	1.00		0.11	1.00		0.09
Lane Grp Cap(c), veh/h	539	0	0	511	0	551	49	1179	635	104	1286	694
V/C Ratio(X)	0.46	0.00	0.00	0.13	0.00	0.17	0.62	0.45	0.45	0.78	0.35	0.35
Avail Cap(c_a), veh/h	1252	0	0	1135	0	1325	1075	4108	2211	1075	4108	2217
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	0.0	12.9	0.0	10.9	23.9	12.6	12.6	23.1	11.1	11.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.1	4.7	0.4	0.7	4.6	0.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.1	0.0	0.0	0.5	0.0	0.6	0.4	2.0	2.2	1.0	1.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.7	0.0	0.0	13.0	0.0	10.9	28.6	12.9	13.2	27.7	11.3	11.4
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		249			158			845			772	
Approach Delay, s/veh		14.7			11.8			13.6			13.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	22.6		19.8	5.8	24.2		19.8				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	14.2	8.0		8.9	2.8	6.7		4.0				
Green Ext Time (p_c), s	0.1	8.9		1.1	0.0	6.2		0.4				

Intersection Summary

HCM 6th Ctrl Delay 13.4

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	25	273	272	75	186	278	615	26	30	1330	83
Future Volume (veh/h)	185	25	273	272	75	186	278	615	26	30	1330	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.84	1.00		0.86	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	195	26	287	286	79	196	293	647	27	32	1400	87
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	327	232	304	420	308	310	1759	766	41	1188	74
Arrive On Green	0.12	0.17	0.17	0.17	0.22	0.22	0.17	0.49	0.49	0.02	0.35	0.35
Sat Flow, veh/h	1781	1870	1329	1781	1870	1370	1781	3554	1547	1781	3398	211
Grp Volume(v), veh/h	195	26	287	286	79	196	293	647	27	32	730	757
Grp Sat Flow(s),veh/h/ln	1781	1870	1329	1781	1870	1370	1781	1777	1547	1781	1777	1831
Q Serve(g_s), s	18.5	2.0	30.0	27.2	5.9	22.2	27.9	19.3	1.5	3.1	60.0	60.0
Cycle Q Clear(g_c), s	18.5	2.0	30.0	27.2	5.9	22.2	27.9	19.3	1.5	3.1	60.0	60.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	215	327	232	304	420	308	310	1759	766	41	621	640
V/C Ratio(X)	0.91	0.08	1.23	0.94	0.19	0.64	0.94	0.37	0.04	0.77	1.17	1.18
Avail Cap(c_a), veh/h	311	327	232	311	420	308	311	1759	766	311	621	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(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	74.5	59.2	70.8	70.3	53.9	60.2	70.0	26.7	22.3	83.3	55.8	55.8
Incr Delay (d2), s/veh	17.7	0.0	137.0	34.8	0.1	3.3	36.5	0.2	0.0	10.8	94.9	97.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	1.0	19.1	15.4	2.8	8.1	15.9	8.4	0.6	1.5	43.2	45.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.2	59.3	207.8	105.1	53.9	63.5	106.5	26.9	22.3	94.1	150.6	153.0
LnGrp LOS	F	E	F	F	D	E	F	C	C	F	F	F
Approach Vol, veh/h	508			561			967			1519		
Approach Delay, s/veh	155.8			83.4			50.9			150.6		
Approach LOS	F			F			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.4	93.6	33.7	34.9	34.3	68.7	25.1	43.4				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+1.5), s	15.1	21.3	29.2	32.0	29.9	62.0	20.5	24.2				
Green Ext Time (p_c), s	0.0	6.6	0.0	0.0	0.0	0.0	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay 113.6

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	330	51	264	96	0	0	0	0	539	123	53
Future Volume (veh/h)	0	330	51	264	96	0	0	0	0	539	123	53
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	355	55	284	103	0				674	0	57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	303	605	267	441	844	0				907	0	673
Arrive On Green	0.00	0.17	0.17	0.25	0.25	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1781	3554	1566	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	355	55	284	103	0				674	0	57
Grp Sat Flow(s), veh/h/ln	1781	1777	1566	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	4.1	1.3	6.3	1.0	0.0				7.7	0.0	1.0
Cycle Q Clear(g_c), s	0.0	4.1	1.3	6.3	1.0	0.0				7.7	0.0	1.0
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	303	605	267	441	844	0				907	0	673
V/C Ratio(X)	0.00	0.59	0.21	0.64	0.12	0.00				0.74	0.00	0.08
Avail Cap(c_a), veh/h	2413	4814	2122	2413	4611	0				2815	0	1521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	16.9	15.8	14.9	12.9	0.0				15.2	0.0	7.6
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.8	0.1	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
%ile BackOfQ(50%), veh/ln	0.0	1.3	0.4	2.1	0.3	0.0				2.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	17.3	15.9	16.7	13.0	0.0				15.6	0.0	7.6
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	410			387			731					
Approach Delay, s/veh	17.1			15.7			15.0					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	11.5			17.5			15.3					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	6.1			9.7			8.3					
Green Ext Time (p_c), s	1.5			1.5			2.7					

Intersection Summary

HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	846	0	0	329	267	47	23	217	32	0	261
Future Volume (veh/h)	117	846	0	0	329	267	47	23	217	32	0	261
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	930	0	0	362	293	52	25	238	35	0	287
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	166	1432	0	0	488	389	354	30	288	40	0	329
Arrive On Green	0.09	0.40	0.00	0.00	0.26	0.26	0.20	0.20	0.20	0.23	0.00	0.23
Sat Flow, veh/h	1781	3647	0	0	1972	1499	1781	152	1445	171	0	1405
Grp Volume(v), veh/h	129	930	0	0	342	313	52	0	263	322	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1601	1781	0	1597	1576	0	0
Q Serve(g_s), s	6.4	19.1	0.0	0.0	15.9	16.3	2.2	0.0	14.3	17.8	0.0	0.0
Cycle Q Clear(g_c), s	6.4	19.1	0.0	0.0	15.9	16.3	2.2	0.0	14.3	17.8	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.94	1.00		0.90	0.11		0.89
Lane Grp Cap(c), veh/h	166	1432	0	0	462	416	354	0	318	369	0	0
V/C Ratio(X)	0.78	0.65	0.00	0.00	0.74	0.75	0.15	0.00	0.83	0.87	0.00	0.00
Avail Cap(c_a), veh/h	591	2360	0	0	1180	1063	789	0	707	698	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.0	21.8	0.0	0.0	30.6	30.8	29.9	0.0	34.7	33.3	0.0	0.0
Incr Delay (d2), s/veh	9.0	0.2	0.0	0.0	2.8	3.3	0.1	0.0	2.1	2.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	7.2	0.0	0.0	6.7	6.2	0.9	0.0	5.6	6.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.0	22.0	0.0	0.0	33.5	34.1	29.9	0.0	36.8	35.9	0.0	0.0
LnGrp LOS	D	C	A	A	C	C	C	A	D	D	A	A
Approach Vol, veh/h	1059				655		315				322	
Approach Delay, s/veh	25.3				33.8		35.7				35.9	
Approach LOS	C				C		D				D	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	40.8		25.2		12.9	27.9	24.4					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	21.1		19.8		8.4	18.3	16.3					
Green Ext Time (p_c), s	4.3		1.4		0.4	5.2	1.2					

Intersection Summary

HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	917	164	266	438	0	0	0	0	921	422	186
Future Volume (veh/h)	0	917	164	266	438	0	0	0	0	921	422	186
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	965	173	280	461	0				969	444	196
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1448	633	365	2010	0				1132	594	501
Arrive On Green	0.00	0.41	0.41	0.14	0.75	0.00				0.32	0.32	0.32
Sat Flow, veh/h	0	3647	1552	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	965	173	280	461	0				969	444	196
Grp Sat Flow(s),veh/h/ln	0	1777	1552	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	18.6	6.2	6.6	3.3	0.0				21.4	17.8	8.1
Cycle Q Clear(g_c), s	0.0	18.6	6.2	6.6	3.3	0.0				21.4	17.8	8.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1448	633	365	2010	0				1132	594	501
V/C Ratio(X)	0.00	0.67	0.27	0.77	0.23	0.00				0.86	0.75	0.39
Avail Cap(c_a), veh/h	0	1448	633	703	2010	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	20.2	16.6	35.1	4.9	0.0				26.8	25.6	22.3
Incr Delay (d2), s/veh	0.0	2.1	0.9	1.2	0.3	0.0				4.2	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.2	2.2	2.6	1.0	0.0				9.3	8.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.3	17.5	36.3	5.2	0.0				31.0	28.3	22.5
LnGrp LOS	A	C	B	D	A	A				C	C	C
Approach Vol, veh/h		1138			741						1609	
Approach Delay, s/veh		21.6			16.9						29.2	
Approach LOS		C			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.3	39.1		31.6		52.4						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.6	20.6		23.4		5.3						
Green Ext Time (p_c), s	0.3	0.0		3.3		3.4						

Intersection Summary

HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	354	1469	0	0	563	491	134	228	41	0	0	0
Future Volume (veh/h)	354	1469	0	0	563	491	134	228	41	0	0	0
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		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	373	1546	0	0	593	517	141	240	43			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1204	2634	0	0	1189	530	232	436	77			
Arrive On Green	0.70	1.00	0.00	0.00	0.33	0.33	0.14	0.14	0.14			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1634	3066	542			
Grp Volume(v), veh/h	373	1546	0	0	593	517	154	131	139			
Grp Sat Flow(s), veh/h/ln	1728	1777	0	0	1777	1585	1789	1702	1752			
Q Serve(g_s), s	3.5	0.0	0.0	0.0	11.2	27.1	6.8	6.0	6.2			
Cycle Q Clear(g_c), s	3.5	0.0	0.0	0.0	11.2	27.1	6.8	6.0	6.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.91		0.31			
Lane Grp Cap(c), veh/h	1204	2634	0	0	1189	530	254	242	249			
V/C Ratio(X)	0.31	0.59	0.00	0.00	0.50	0.98	0.61	0.54	0.56			
Avail Cap(c_a), veh/h	1204	2634	0	0	1189	530	598	569	586			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(l)	0.47	0.47	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.8	0.0	0.0	0.0	22.3	27.6	33.8	33.5	33.6			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.5	33.4	0.9	0.7	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.2	0.0	0.0	4.5	14.1	3.0	2.5	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.9	0.5	0.0	0.0	23.8	61.0	34.7	34.2	34.3			
LnGrp LOS	A	A	A	A	C	E	C	C	C			
Approach Vol, veh/h	1919				1110				424			
Approach Delay, s/veh	2.1				41.1				34.4			
Approach LOS	A				D				C			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	67.2				34.2		33.0		16.8			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	46.1				13.1		* 28		28.1			
Max Q Clear Time (g_c+l1), s	2.0				5.5		29.1		8.8			
Green Ext Time (p_c), s	19.4				0.8		0.0		1.5			

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	23	48	23	1567	25	0	0	0
Future Volume (veh/h)	0	0	0	0	23	48	23	1567	25	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	24	51	24	1649	26			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	66	94	3607	56			
Arrive On Green				0.00	0.06	0.06	0.72	0.72	0.72			
Sat Flow, veh/h				0	533	1133	28	4991	78			
Grp Volume(v), veh/h				0	0	75	621	516	562			
Grp Sat Flow(s),veh/h/ln				0	0	1666	1862	1549	1687			
Q Serve(g_s), s				0.0	0.0	2.2	0.0	7.0	7.0			
Cycle Q Clear(g_c), s				0.0	0.0	2.2	7.0	7.0	7.0			
Prop In Lane				0.00		0.68	0.04		0.05			
Lane Grp Cap(c), veh/h				0	0	97	1419	1119	1219			
V/C Ratio(X)				0.00	0.00	0.77	0.44	0.46	0.46			
Avail Cap(c_a), veh/h				0	0	1315	2271	1834	1997			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	23.5	2.9	2.9	2.9			
Incr Delay (d2), s/veh				0.0	0.0	4.8	0.3	0.4	0.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	1.0	1.1	0.9	1.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	28.3	3.2	3.4	3.3			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					75			1699				
Approach Delay, s/veh					28.3			3.3				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		42.2						8.5				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		9.0						4.2				
Green Ext Time (p_c), s		27.6						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.4									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	249	79	313	400	150	148	503	73	261	1147	86
Future Volume (veh/h)	137	249	79	313	400	150	148	503	73	261	1147	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	265	84	333	426	160	157	535	78	278	1220	91
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	459	388	362	455	171	160	940	135	293	1374	102
Arrive On Green	0.10	0.25	0.25	0.20	0.35	0.35	0.09	0.21	0.21	0.16	0.28	0.28
Sat Flow, veh/h	1781	1870	1581	1781	1295	487	1781	4505	646	1781	4845	361
Grp Volume(v), veh/h	146	265	84	333	0	586	157	402	211	278	857	454
Grp Sat Flow(s),veh/h/ln	1781	1870	1581	1781	0	1782	1781	1702	1747	1781	1702	1802
Q Serve(g_s), s	8.6	13.3	4.5	19.6	0.0	34.0	9.4	11.3	11.6	16.5	25.8	25.8
Cycle Q Clear(g_c), s	8.6	13.3	4.5	19.6	0.0	34.0	9.4	11.3	11.6	16.5	25.8	25.8
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.37	1.00		0.20
Lane Grp Cap(c), veh/h	174	459	388	362	0	625	160	711	365	293	965	511
V/C Ratio(X)	0.84	0.58	0.22	0.92	0.00	0.94	0.98	0.57	0.58	0.95	0.89	0.89
Avail Cap(c_a), veh/h	177	472	399	393	0	667	160	726	373	293	981	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	47.4	35.4	32.1	41.7	0.0	33.6	48.6	37.9	38.1	44.2	36.7	36.7
Incr Delay (d2), s/veh	26.5	1.0	0.1	24.5	0.0	20.3	65.2	1.5	3.2	38.3	10.4	17.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	6.2	1.8	11.1	0.0	18.0	7.0	4.8	5.2	10.3	11.8	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.8	36.4	32.2	66.2	0.0	53.8	113.7	39.5	41.3	82.5	47.0	54.2
LnGrp LOS	E	D	C	E	A	D	F	D	D	F	D	D
Approach Vol, veh/h	495			919			770			1589		
Approach Delay, s/veh	46.8			58.3			55.1			55.3		
Approach LOS	D			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.6	27.6	26.1	31.2	14.0	35.6	14.9	42.4				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	22.8	22.8	23.6	27.0	9.6	30.8	10.6	40.0				
Max Q Clear Time (g_c+T1), s	13.6	13.6	21.6	15.3	11.4	27.8	10.6	36.0				
Green Ext Time (p_c), s	0.0	3.8	0.1	0.9	0.0	2.5	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay 54.9

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2035 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	256	439	79	230	0	0	0	0	204	2627	499
Future Volume (veh/h)	0	256	439	79	230	0	0	0	0	204	2627	499
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	275	472	85	247	0				219	2825	537
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	467	395	112	456	0				1188	2904	520
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.67	0.67	0.67
Sat Flow, veh/h	0	1870	1581	285	1912	0				1781	4355	779
Grp Volume(v), veh/h	0	275	472	131	201	0				219	2170	1192
Grp Sat Flow(s),veh/h/ln	0	1870	1581	495	1617	0				1781	1702	1730
Q Serve(g_s), s	0.0	18.8	36.2	17.4	15.5	0.0				6.8	84.9	96.7
Cycle Q Clear(g_c), s	0.0	18.8	36.2	36.2	15.5	0.0				6.8	84.9	96.7
Prop In Lane	0.00		1.00	0.65		0.00				1.00		0.45
Lane Grp Cap(c), veh/h	0	467	395	165	404	0				1188	2270	1154
V/C Ratio(X)	0.00	0.59	1.20	0.80	0.50	0.00				0.18	0.96	1.03
Avail Cap(c_a), veh/h	0	467	395	165	404	0				1188	2270	1154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	47.9	54.4	61.4	46.6	0.0				9.2	22.2	24.2
Incr Delay (d2), s/veh	0.0	1.3	110.3	22.4	0.7	0.0				0.1	10.6	35.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.0	26.6	5.9	6.4	0.0				2.7	34.9	47.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.2	164.7	83.8	47.3	0.0				9.3	32.8	59.7
LnGrp LOS	A	D	F	F	D	A				A	C	F
Approach Vol, veh/h		747			332						3581	
Approach Delay, s/veh		122.2			61.7						40.3	
Approach LOS		F			E						D	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				42.0		103.0		42.0				
Change Period (Y+Rc), s				5.8		6.3		5.8				
Max Green Setting (Gmax), s				36.2		96.7		36.2				
Max Q Clear Time (g_c+I1), s				38.2		98.7		38.2				
Green Ext Time (p_c), s				0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			54.9									
HCM 6th LOS			D									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2035 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	174	48	257	0	23	13	281	1651	48	0	0	0
Future Volume (veh/h)	174	48	257	0	23	13	281	1651	48	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	183	51	271	0	24	14	296	1738	51			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	338	67	1314	0	252	147	1076	2130	62			
Arrive On Green	0.23	0.23	0.23	0.00	0.23	0.23	0.60	0.60	0.60			
Sat Flow, veh/h	1052	293	1568	0	1108	646	1781	3524	103			
Grp Volume(v), veh/h	234	0	271	0	0	38	296	873	916			
Grp Sat Flow(s),veh/h/ln	1345	0	1568	0	0	1754	1781	1777	1850			
Q Serve(g_s), s	9.8	0.0	0.0	0.0	0.0	1.1	5.1	24.7	25.1			
Cycle Q Clear(g_c), s	10.9	0.0	0.0	0.0	0.0	1.1	5.1	24.7	25.1			
Prop In Lane	0.78		1.00	0.00		0.37	1.00		0.06			
Lane Grp Cap(c), veh/h	405	0	1314	0	0	398	1076	1074	1118			
V/C Ratio(X)	0.58	0.00	0.21	0.00	0.00	0.10	0.27	0.81	0.82			
Avail Cap(c_a), veh/h	588	0	1511	0	0	578	1180	1177	1225			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	24.0	0.0	1.1	0.0	0.0	19.7	6.1	9.9	10.0			
Incr Delay (d2), s/veh	1.3	0.0	0.1	0.0	0.0	0.0	0.1	4.1	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			
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	0.0	0.0	0.4	1.5	8.5	9.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	0.0	1.2	0.0	0.0	19.8	6.2	14.1	14.2			
LnGrp LOS	C	A	A	A	A	B	A	B	B			
Approach Vol, veh/h	505			38			2085					
Approach Delay, s/veh	12.4			19.8			13.0					
Approach LOS	B			B			B					
Timer - Assigned Phs	2			4			8					
Phs Duration (G+Y+Rc), s	43.6			21.1			21.1					
Change Period (Y+Rc), s	4.5			* 6.4			6.4					
Max Green Setting (Gmax), s	42.8			* 23			21.3					
Max Q Clear Time (g_c+I1), s	27.1			12.9			3.1					
Green Ext Time (p_c), s	12.0			1.8			0.1					

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	62	52	151	4	14	28	610	316	267	1423	18
Future Volume (veh/h)	36	62	52	151	4	14	28	610	316	267	1423	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	72	60	176	5	16	33	709	367	310	1655	21
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	445	243	202	348	100	321	48	2082	642	423	2614	33
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.03	0.41	0.41	0.12	0.50	0.50
Sat Flow, veh/h	1379	939	782	1249	389	1244	1781	5106	1575	3456	5196	66
Grp Volume(v), veh/h	42	0	132	176	0	21	33	709	367	310	1084	592
Grp Sat Flow(s),veh/h/ln	1379	0	1721	1249	0	1633	1781	1702	1575	1728	1702	1858
Q Serve(g_s), s	1.7	0.0	4.3	9.3	0.0	0.7	1.3	6.7	12.7	6.1	16.4	16.4
Cycle Q Clear(g_c), s	2.3	0.0	4.3	13.6	0.0	0.7	1.3	6.7	12.7	6.1	16.4	16.4
Prop In Lane	1.00		0.45	1.00		0.76	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	445	0	445	348	0	422	48	2082	642	423	1713	935
V/C Ratio(X)	0.09	0.00	0.30	0.51	0.00	0.05	0.69	0.34	0.57	0.73	0.63	0.63
Avail Cap(c_a), veh/h	871	0	977	734	0	927	758	4348	1341	1471	2898	1582
HCM Platoon Ratio	1.00	1.00	1.00	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	20.5	0.0	21.0	26.5	0.0	19.6	34.0	14.3	16.1	29.8	12.8	12.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	6.3	0.2	1.4	0.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.7	2.7	0.0	0.3	0.6	2.4	4.3	2.4	5.4	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	21.1	26.9	0.0	19.6	40.3	14.5	17.5	30.8	13.2	13.5
LnGrp LOS	C	A	C	C	A	B	D	B	B	C	B	B
Approach Vol, veh/h	174				197		1109		1986			
Approach Delay, s/veh	21.0				26.1		16.3		16.0			
Approach LOS	C				C		B		B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	3.0	34.4	23.0		6.3	41.2	23.0					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+1.0), s	14.7		6.3		3.3	18.4	15.6					
Green Ext Time (p_c), s	0.5	14.1	0.6		0.0	16.8	0.4					

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

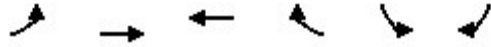
Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↑
Traffic Vol, veh/h	5707	12	0	2386	0	1
Future Vol, veh/h	5707	12	0	2386	0	1
Conflicting Peds, #/hr	0	1	1	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	5823	12	0	2435	0	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 2919
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 7.14
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.92
Pot Cap-1 Maneuver	-	-	0 - 0 9
Stage 1	-	-	0 - 0 -
Stage 2	-	-	0 - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 9
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	\$ 450.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	9	-	-	-
HCM Lane V/C Ratio	0.113	-	-	-
HCM Control Delay (s)	\$ 450.9	-	-	-
HCM Lane LOS	F	-	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑↑↑	↑↑↑	↑	↑	↑
Traffic Volume (veh/h)	1784	3573	3144	31	55	74
Future Volume (veh/h)	1784	3573	3144	31	55	74
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1858	3722	3275	0	57	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	867	4216	2779		116	104
Arrive On Green	0.25	0.85	0.56	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1858	3722	3275	0	57	77
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	29.6	53.7	65.8	0.0	3.6	5.6
Cycle Q Clear(g_c), s	29.6	53.7	65.8	0.0	3.6	5.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	867	4216	2779		116	104
V/C Ratio(X)	2.14	0.88	1.18		0.49	0.74
Avail Cap(c_a), veh/h	867	4216	2779		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	5.5	26.1	0.0	53.2	54.2
Incr Delay (d2), s/veh	518.4	3.0	80.6	0.0	1.2	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	74.6	8.7	43.7	0.0	1.6	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	562.6	8.6	106.7	0.0	54.4	58.1
LnGrp LOS	F	A	F		D	E
Approach Vol, veh/h		5580	3275	A	134	
Approach Delay, s/veh		193.1	106.7		56.5	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.1		12.9	34.0	71.1
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	29.6	* 44
Max Q Clear Time (g_c+I1), s		55.7		7.6	31.6	67.8
Green Ext Time (p_c), s		21.8		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			159.6			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2035 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	1638	113	111	1059	123	116	355	159	220	878	671
Future Volume (veh/h)	353	1638	113	111	1059	123	116	355	159	220	878	671
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	410	1905	131	129	1231	143	135	413	185	256	1021	780
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	1581	107	174	1147	133	159	529	225	244	1017	651
Arrive On Green	0.21	0.47	0.47	0.03	0.12	0.12	0.09	0.15	0.15	0.14	0.20	0.20
Sat Flow, veh/h	1781	3373	229	1781	3208	371	1781	3502	1487	1781	5106	1565
Grp Volume(v), veh/h	410	992	1044	129	680	694	135	401	197	256	1021	780
Grp Sat Flow(s),veh/h/ln	1781	1777	1825	1781	1777	1803	1781	1702	1585	1781	1702	1565
Q Serve(g_s), s	30.0	65.6	65.6	10.1	50.0	50.0	10.5	15.9	16.9	19.2	27.9	27.9
Cycle Q Clear(g_c), s	30.0	65.6	65.6	10.1	50.0	50.0	10.5	15.9	16.9	19.2	27.9	27.9
Prop In Lane	1.00		0.13	1.00		0.21	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	382	833	855	174	635	644	159	514	239	244	1017	651
V/C Ratio(X)	1.07	1.19	1.22	0.74	1.07	1.08	0.85	0.78	0.82	1.05	1.00	1.20
Avail Cap(c_a), veh/h	382	833	855	174	635	644	244	625	291	244	1017	651
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.83	0.83	0.97	0.97	0.97	0.76	0.76	0.76
Uniform Delay (d), s/veh	55.0	37.2	37.2	66.0	61.7	61.7	62.8	57.2	57.6	60.4	56.1	41.2
Incr Delay (d2), s/veh	67.2	97.9	109.9	21.0	53.0	55.0	9.7	5.2	14.7	63.3	25.7	100.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.4	49.8	54.0	5.8	33.3	34.1	5.1	7.2	7.7	12.9	14.3	39.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.2	135.1	147.1	87.0	114.8	116.8	72.5	62.4	72.3	123.7	81.7	141.4
LnGrp LOS	F	F	F	F	F	F	E	E	E	F	F	F
Approach Vol, veh/h	2446			1503			733			2057		
Approach Delay, s/veh	138.1			113.3			66.9			109.6		
Approach LOS	F			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.6	26.2	19.4	70.8	16.9	32.9	34.4	55.8				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+0.1), s	21.2	18.9	12.1	67.6	12.5	29.9	32.0	52.0				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.0	0.1	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	116.1
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↔↑↑	↔
Traffic Volume (veh/h)	0	1761	189	44	210	0	0	0	0	296	789	1103
Future Volume (veh/h)	0	1761	189	44	210	0	0	0	0	296	789	1103
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1873	201	47	223	0				315	839	1173
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1610	170	72	2021	0				487	1429	543
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3336	342	1781	3647	0				1408	4133	1570
Grp Volume(v), veh/h	0	1010	1064	47	223	0				403	751	1173
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1800	1870	1570
Q Serve(g_s), s	0.0	69.5	69.5	3.6	4.0	0.0				26.4	23.0	48.4
Cycle Q Clear(g_c), s	0.0	69.5	69.5	3.6	4.0	0.0				26.4	23.0	48.4
Prop In Lane	0.00		0.19	1.00		0.00				0.78		1.00
Lane Grp Cap(c), veh/h	0	882	898	72	2021	0				622	1293	543
V/C Ratio(X)	0.00	1.15	1.18	0.65	0.11	0.00				0.65	0.58	2.16
Avail Cap(c_a), veh/h	0	882	898	313	2021	0				622	1293	543
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.69	0.69	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	58.5	58.5	66.2	13.9	0.0				38.6	37.5	45.8
Incr Delay (d2), s/veh	0.0	66.7	84.3	2.5	0.1	0.0				5.1	1.9	528.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	49.5	54.7	1.7	1.6	0.0				12.7	11.0	98.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	125.2	142.8	68.7	14.0	0.0				43.7	39.4	574.5
LnGrp LOS	A	F	F	E	B	A				D	D	F
Approach Vol, veh/h		2074			270						2327	
Approach Delay, s/veh		134.3			23.5						309.9	
Approach LOS		F			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	0.1	76.1		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.6	71.5		50.4		6.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	215.3
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2035 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	1064	996	0	0	221	181	39	250	135	0	0	0
Future Volume (veh/h)	1064	996	0	0	221	181	39	250	135	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	1144	1071	0	0	238	195	42	269	145			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1533	1370	0	0	430	338	68	459	212			
Arrive On Green	0.44	0.73	0.00	0.00	0.23	0.23	0.15	0.15	0.15			
Sat Flow, veh/h	3456	1870	0	0	1986	1487	467	3157	1460			
Grp Volume(v), veh/h	1144	1071	0	0	223	210	166	145	145			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1603	1847	1777	1460			
Q Serve(g_s), s	22.0	28.7	0.0	0.0	8.9	9.3	6.8	6.1	7.5			
Cycle Q Clear(g_c), s	22.0	28.7	0.0	0.0	8.9	9.3	6.8	6.1	7.5			
Prop In Lane	1.00		0.00	0.00		0.93	0.25		1.00			
Lane Grp Cap(c), veh/h	1533	1370	0	0	404	364	268	258	212			
V/C Ratio(X)	0.75	0.78	0.00	0.00	0.55	0.58	0.62	0.56	0.68			
Avail Cap(c_a), veh/h	1533	1370	0	0	580	523	395	380	312			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	0.89	0.89	0.89			
Uniform Delay (d), s/veh	18.5	6.7	0.0	0.0	27.3	27.5	32.1	31.8	32.4			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	0.4	0.5	0.8	0.6	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.8	6.8	0.0	0.0	3.6	3.4	3.0	2.6	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	7.1	0.0	0.0	27.7	28.0	32.9	32.5	33.7			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	2215			433			456					
Approach Delay, s/veh	13.1			27.9			33.0					
Approach LOS	B			C			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	63.5			40.4			23.1			16.5		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	30.7			24.0			11.3			9.5		
Green Ext Time (p_c), s	5.7			0.0			1.4			1.0		

Intersection Summary

HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	208	1759	1196	0	0	3737
Future Volume (veh/h)	208	1759	1196	0	0	3737
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	217	0	1246	0	0	3893
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	249		3181	0	166	4844
Arrive On Green	0.14	0.00	0.64	0.00	0.00	0.77
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	217	0	1246	0	0	3893
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	13.1	0.0	13.3	0.0	0.0	41.0
Cycle Q Clear(g_c), s	13.1	0.0	13.3	0.0	0.0	41.0
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	249		3181	0	166	4844
V/C Ratio(X)	0.87		0.39	0.00	0.00	0.80
Avail Cap(c_a), veh/h	486		3181	0	607	4844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.28	0.00	0.31	0.00	0.00	0.33
Uniform Delay (d), s/veh	46.4	0.0	9.6	0.0	0.0	7.6
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	4.2	0.0	0.0	9.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.4	0.0	9.6	0.0	0.0	8.1
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	217	A	1246			3893
Approach Delay, s/veh	47.4		9.6			8.1
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	4.6	75.1			89.7	20.3
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	37.5	28.3			70.2	30.0
Max Q Clear Time (g_c+10), s	10.0	15.3			43.0	15.1
Green Ext Time (p_c), s	0.0	8.3			27.1	0.3

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	279	1834	142	143	488	0	0	977	45
Future Volume (veh/h)	0	0	0	279	1834	142	143	488	0	0	977	45
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				294	1931	149	151	514	0	0	1028	47
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				318	2232	176	178	1942	0	0	1110	51
Arrive On Green				0.17	0.17	0.17	0.20	0.76	0.00	0.00	0.22	0.22
Sat Flow, veh/h				623	4376	344	1781	5274	0	0	5165	228
Grp Volume(v), veh/h				868	726	780	151	514	0	0	700	375
Grp Sat Flow(s),veh/h/ln				1839	1702	1803	1781	1702	0	0	1702	1821
Q Serve(g_s), s				51.1	45.4	46.2	9.0	3.3	0.0	0.0	22.1	22.2
Cycle Q Clear(g_c), s				51.1	45.4	46.2	9.0	3.3	0.0	0.0	22.1	22.2
Prop In Lane				0.34		0.19	1.00		0.00	0.00		0.13
Lane Grp Cap(c), veh/h				938	868	919	178	1942	0	0	756	405
V/C Ratio(X)				0.93	0.84	0.85	0.85	0.26	0.00	0.00	0.93	0.93
Avail Cap(c_a), veh/h				938	868	919	188	1954	0	0	761	407
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.50	0.50	0.50	0.60	0.60	0.00	0.00	0.24	0.24
Uniform Delay (d), s/veh				43.7	41.3	41.6	43.2	8.6	0.0	0.0	41.9	41.9
Incr Delay (d2), s/veh				9.3	5.0	5.1	17.3	0.0	0.0	0.0	5.3	9.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				27.6	21.9	23.6	4.4	1.1	0.0	0.0	9.7	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				53.0	46.3	46.7	60.5	8.6	0.0	0.0	47.2	51.1
LnGrp LOS				D	D	D	E	A	A	A	D	D
Approach Vol, veh/h					2374			665			1075	
Approach Delay, s/veh					48.9			20.4			48.5	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.9	30.8		62.0	47.7				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				11.6	* 25		56.1	42.1				
Max Q Clear Time (g_c+I1), s				11.0	24.2		53.1	5.3				
Green Ext Time (p_c), s				0.0	0.2		2.7	4.2				
Intersection Summary												
HCM 6th Ctrl Delay											44.2	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	309	2308	0	0	0	0	0	583	98
Future Volume (veh/h)	0	0	0	309	2308	0	0	0	0	0	583	98
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				322	2404	0				0	607	102
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				402	3241	0				0	938	155
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				579	4835	0				0	4559	725
Grp Volume(v), veh/h				1024	1702	0				0	468	241
Grp Sat Flow(s),veh/h/ln				1841	1702	0				0	1702	1711
Q Serve(g_s), s				57.7	50.8	0.0				0.0	13.8	14.2
Cycle Q Clear(g_c), s				57.7	50.8	0.0				0.0	13.8	14.2
Prop In Lane				0.31		0.00				0.00		0.42
Lane Grp Cap(c), veh/h				1279	2364	0				0	727	366
V/C Ratio(X)				0.80	0.72	0.00				0.00	0.64	0.66
Avail Cap(c_a), veh/h				1279	2364	0				0	727	366
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				35.2	32.5	0.0				0.0	39.4	39.6
Incr Delay (d2), s/veh				5.3	1.9	0.0				0.0	4.4	9.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				30.2	23.7	0.0				0.0	6.2	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.5	34.4	0.0				0.0	43.8	48.6
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2726						709	
Approach Delay, s/veh					36.7						45.4	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				28.4		81.6						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				23.5		76.4						
Max Q Clear Time (g_c+l1), s				16.2		59.7						
Green Ext Time (p_c), s				0.8		5.1						
Intersection Summary												
HCM 6th Ctrl Delay				38.5								
HCM 6th LOS				D								

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2566	126	100	192	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2566	126	100	192	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2645	130	103	198	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3606	175	213	443	0			
Arrive On Green				0.00	0.24	0.24	0.06	0.06	0.00			
Sat Flow, veh/h				0	5157	242	1165	2517	0			
Grp Volume(v), veh/h				0	1794	981	160	141	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1827	1812	1777	0			
Q Serve(g_s), s				0.0	53.4	54.7	9.4	8.4	0.0			
Cycle Q Clear(g_c), s				0.0	53.4	54.7	9.4	8.4	0.0			
Prop In Lane				0.00		0.13	0.64		0.00			
Lane Grp Cap(c), veh/h				0	2460	1320	331	325	0			
V/C Ratio(X)				0.00	0.73	0.74	0.48	0.43	0.00			
Avail Cap(c_a), veh/h				0	2460	1320	331	325	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	32.0	32.4	46.7	46.2	0.0			
Incr Delay (d2), s/veh				0.0	1.9	3.8	5.0	4.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	24.9	28.0	5.0	4.3	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	33.9	36.3	51.6	50.4	0.0			
LnGrp LOS				A	C	D	D	D	A			
Approach Vol, veh/h					2775			301				
Approach Delay, s/veh					34.7			51.1				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.0		25.0				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						79.5		20.1				
Max Q Clear Time (g_c+I1), s						56.7		11.4				
Green Ext Time (p_c), s						20.4		1.1				
Intersection Summary												
HCM 6th Ctrl Delay											36.3	
HCM 6th LOS											D	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	277	2708	0	0	0	0	0	520	64
Future Volume (veh/h)	0	0	0	277	2708	0	0	0	0	0	520	64
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				295	2881	0				0	553	68
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				322	3388	0				0	714	312
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				456	4964	0				0	3647	1552
Grp Volume(v), veh/h				1196	1980	0				0	553	68
Grp Sat Flow(s),veh/h/ln				1848	1702	0				0	1777	1552
Q Serve(g_s), s				69.4	60.7	0.0				0.0	16.2	4.0
Cycle Q Clear(g_c), s				69.4	60.7	0.0				0.0	16.2	4.0
Prop In Lane				0.25		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1305	2405	0				0	714	312
V/C Ratio(X)				0.92	0.82	0.00				0.00	0.77	0.22
Avail Cap(c_a), veh/h				1305	2405	0				0	714	312
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				39.0	35.7	0.0				0.0	41.6	36.7
Incr Delay (d2), s/veh				11.5	3.4	0.0				0.0	8.0	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				38.5	28.7	0.0				0.0	7.9	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				50.5	39.0	0.0				0.0	49.6	38.3
LnGrp LOS				D	D	A				A	D	D
Approach Vol, veh/h					3176						621	
Approach Delay, s/veh					43.4						48.4	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.0		83.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.1		77.7						
Max Q Clear Time (g_c+l1), s				18.2		71.4						
Green Ext Time (p_c), s				1.5		6.2						
Intersection Summary												
HCM 6th Ctrl Delay											44.2	
HCM 6th LOS											D	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2870	42	157	166	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2870	42	157	166	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3021	44	165	175	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3776	55	290	342	0			
Arrive On Green				0.00	0.73	0.73	0.06	0.06	0.00			
Sat Flow, veh/h				0	5354	75	1638	2021	0			
Grp Volume(v), veh/h				0	1978	1087	180	160	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1857	1788	1777	0			
Q Serve(g_s), s				0.0	41.5	42.2	10.8	9.6	0.0			
Cycle Q Clear(g_c), s				0.0	41.5	42.2	10.8	9.6	0.0			
Prop In Lane				0.00		0.04	0.92		0.00			
Lane Grp Cap(c), veh/h				0	2479	1352	317	315	0			
V/C Ratio(X)				0.00	0.80	0.80	0.57	0.51	0.00			
Avail Cap(c_a), veh/h				0	2479	1352	317	315	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	9.7	9.8	47.7	47.1	0.0			
Incr Delay (d2), s/veh				0.0	2.8	5.2	7.2	5.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	13.8	16.2	5.8	5.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	12.5	15.0	54.9	52.9	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					3065			340				
Approach Delay, s/veh					13.4			53.9				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						44.2		12.8				
Green Ext Time (p_c), s						32.5		1.1				
Intersection Summary												
HCM 6th Ctrl Delay											17.4	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	224	651	5	109	0	0	0	26
Future Vol, veh/h	0	0	0	0	224	651	5	109	0	0	0	26
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	233	678	5	114	0	0	0	27
Major/Minor	Major2			Minor1			Minor2					
Conflicting Flow All				-	-	0	117	911	-	-	-	456
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	117	911	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	847	273	0	0	0	551
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	875	351	0	0	0	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	805	273	-	-	-	551
Mov Cap-2 Maneuver				-	-	-	805	273	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	832	351	-	-	-	-
Approach	WB			NB			SB					
HCM Control Delay, s	0			27.3			11.9					
HCM LOS				D			B					
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	273	-	-	551								
HCM Lane V/C Ratio	0.416	-	-	0.049								
HCM Control Delay (s)	27.3	-	-	11.9								
HCM Lane LOS	D	-	-	B								
HCM 95th %tile Q(veh)	1.9	-	-	0.2								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	1156	21	2503	1458	0
Future Volume (veh/h)	0	0	0	0	0	0	0	1156	21	2503	1458	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.88	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	1180	21	2554	1488	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1306	365	3269	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.26	0.26	0.44	0.64	0.00
Sat Flow, veh/h		0					0	5149	1395	5023	1826	0
Grp Volume(v), veh/h		0.0					0	1180	21	2554	1488	0
Grp Sat Flow(s),veh/h/ln							0	1662	1395	1674	1826	0
Q Serve(g_s), s							0.0	25.2	1.2	47.8	71.4	0.0
Cycle Q Clear(g_c), s							0.0	25.2	1.2	47.8	71.4	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1306	365	3269	1740	0
V/C Ratio(X)							0.00	0.90	0.06	0.78	0.86	0.00
Avail Cap(c_a), veh/h							0	1319	369	3269	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.43	0.43	0.00
Uniform Delay (d), s/veh							0.0	39.2	30.4	24.3	13.9	0.0
Incr Delay (d2), s/veh							0.0	9.6	0.2	0.6	2.5	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	10.9	0.4	19.4	24.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	48.8	30.6	24.9	16.4	0.0
LnGrp LOS							A	D	C	C	B	A
Approach Vol, veh/h								1201			4042	
Approach Delay, s/veh								48.5			21.8	
Approach LOS								D			C	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	76.0	34.0					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	33.6	* 29					66.8					
Max Q Clear Time (g_c+l1), s	49.8	27.2					73.4					
Green Ext Time (p_c), s	0.0	1.6					0.0					
Intersection Summary												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑					↑↑↑↑		↑	↑↑↑↑	
Traffic Volume (veh/h)	123	2169	113	0	0	0	0	539	172	140	1009	0
Future Volume (veh/h)	123	2169	113	0	0	0	0	539	172	140	1009	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.92	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	126	2213	115				0	550	176	143	1030	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	156	2929	923				0	696	214	172	1634	0
Arrive On Green	0.19	0.19	0.19				0.00	0.18	0.18	0.19	0.64	0.00
Sat Flow, veh/h	266	4995	1575				0	3956	1165	1781	5274	0
Grp Volume(v), veh/h	878	1461	115				0	492	234	143	1030	0
Grp Sat Flow(s),veh/h/ln	1857	1702	1575				0	1702	1548	1781	1702	0
Q Serve(g_s), s	49.7	44.3	6.6				0.0	15.2	16.0	8.5	13.4	0.0
Cycle Q Clear(g_c), s	49.7	44.3	6.6				0.0	15.2	16.0	8.5	13.4	0.0
Prop In Lane	0.14		1.00				0.00		0.75	1.00		0.00
Lane Grp Cap(c), veh/h	1089	1996	923				0	625	284	172	1634	0
V/C Ratio(X)	0.81	0.73	0.12				0.00	0.79	0.82	0.83	0.63	0.00
Avail Cap(c_a), veh/h	1089	1996	923				0	715	325	285	2070	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.21	0.21	0.00
Uniform Delay (d), s/veh	38.4	36.2	21.0				0.0	42.8	43.2	43.6	15.9	0.0
Incr Delay (d2), s/veh	0.6	0.2	0.0				0.0	5.3	14.3	0.9	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
%ile BackOfQ(50%),veh/ln	24.8	20.2	2.6				0.0	6.7	7.1	3.4	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	36.4	21.0				0.0	48.2	57.5	44.5	15.9	0.0
LnGrp LOS	D	D	C				A	D	E	D	B	A
Approach Vol, veh/h	2454						726			1173		
Approach Delay, s/veh	36.6						51.2			19.4		
Approach LOS	D						D			B		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	69.4			40.6			15.0		25.6			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	55.1			44.6			17.6		* 23			
Max Q Clear Time (g_c+I1), s	51.7			15.4			10.5		18.0			
Green Ext Time (p_c), s	3.3			6.4			0.1		2.2			

Intersection Summary

HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	2522	38	0	0	0	0	0	0	442	547	0
Future Volume (veh/h)	0	2522	38	0	0	0	0	0	0	442	547	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2771	42							486	601	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3066	46							568	1086	0
Arrive On Green	0.00	0.20	0.20							0.11	0.11	0.00
Sat Flow, veh/h	0	5348	78							1781	3572	0
Grp Volume(v), veh/h	0	1816	997							486	601	0
Grp Sat Flow(s),veh/h/ln	0	1702	1854							1781	1702	0
Q Serve(g_s), s	0.0	57.3	57.8							29.5	18.5	0.0
Cycle Q Clear(g_c), s	0.0	57.3	57.8							29.5	18.5	0.0
Prop In Lane	0.00		0.04							1.00		0.00
Lane Grp Cap(c), veh/h	0	2015	1097							568	1086	0
V/C Ratio(X)	0.00	0.90	0.91							0.86	0.55	0.00
Avail Cap(c_a), veh/h	0	2015	1097							568	1086	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	41.1	41.3							46.7	41.8	0.0
Incr Delay (d2), s/veh	0.0	7.1	12.5							15.2	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	28.0	32.4							16.5	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	48.2	53.8							61.9	43.8	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		2813									1087	
Approach Delay, s/veh		50.2									51.9	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		70.0	40.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		65.1	35.1									
Max Q Clear Time (g_c+l1), s		59.8	31.5									
Green Ext Time (p_c), s		4.1	1.3									
Intersection Summary												
HCM 6th Ctrl Delay			50.7									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	84	3543	0	0	0	0	0	193	278	0	0	0
Future Volume (veh/h)	84	3543	0	0	0	0	0	193	278	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.93			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	92	3893	0				0	212	305			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	81	3660	0				0	357	296			
Arrive On Green	0.23	0.23	0.00				0.00	0.20	0.20			
Sat Flow, veh/h	114	5323	0				0	1870	1471			
Grp Volume(v), veh/h	1500	2485	0				0	212	305			
Grp Sat Flow(s),veh/h/ln	1865	1702	0				0	1777	1471			
Q Serve(g_s), s	78.1	78.1	0.0				0.0	11.9	22.1			
Cycle Q Clear(g_c), s	78.1	78.1	0.0				0.0	11.9	22.1			
Prop In Lane	0.06		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1324	2417	0				0	357	296			
V/C Ratio(X)	1.13	1.03	0.00				0.00	0.59	1.03			
Avail Cap(c_a), veh/h	1324	2417	0				0	357	296			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	42.1	42.1	0.0				0.0	39.9	44.0			
Incr Delay (d2), s/veh	69.9	25.9	0.0				0.0	7.1	60.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	44.6	44.2	0.0				0.0	5.9	13.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.0	68.0	0.0				0.0	47.0	104.7			
LnGrp LOS	F	F	A				A	D	F			
Approach Vol, veh/h		3985						517				
Approach Delay, s/veh		84.6						81.0				
Approach LOS		F						F				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		83.0						27.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		78.1						22.1				
Max Q Clear Time (g_c+I1), s		80.1						24.1				
Green Ext Time (p_c), s		0.0						0.0				
Intersection Summary												
HCM 6th Ctrl Delay			84.2									
HCM 6th LOS			F									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	4155	112	0	0	0	0	0	0	325	447	0
Future Volume (veh/h)	0	4155	112	0	0	0	0	0	0	325	447	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	4516	122							353	486	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3768	101							309	617	0
Arrive On Green	0.00	0.24	0.24							0.06	0.06	0.00
Sat Flow, veh/h	0	5279	137							1781	3647	0
Grp Volume(v), veh/h	0	2993	1645							353	486	0
Grp Sat Flow(s),veh/h/ln	0	1702	1844							1781	1777	0
Q Serve(g_s), s	0.0	81.1	81.1							19.1	14.9	0.0
Cycle Q Clear(g_c), s	0.0	81.1	81.1							19.1	14.9	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	2510	1359							309	617	0
V/C Ratio(X)	0.00	1.19	1.21							1.14	0.79	0.00
Avail Cap(c_a), veh/h	0	2510	1359							309	617	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	41.6	41.6							51.8	49.8	0.0
Incr Delay (d2), s/veh	0.0	90.9	101.5							95.0	9.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	68.6	78.3							17.3	7.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	132.6	143.2							146.9	59.7	0.0
LnGrp LOS	A	F	F							F	E	A
Approach Vol, veh/h		4638									839	
Approach Delay, s/veh		136.3									96.4	
Approach LOS		F									F	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		86.0		24.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		81.1		19.1								
Max Q Clear Time (g_c+l1), s		83.1		21.1								
Green Ext Time (p_c), s		0.0		0.0								
Intersection Summary												
HCM 6th Ctrl Delay			130.2									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

SDCRAA ADP EIR
30: State St & W Grape St

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	173	3757	0	0	0	0	0	176	45	0	0	0
Future Volume (veh/h)	173	3757	0	0	0	0	0	176	45	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	204	4420	0				0	207	53			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	161	3720	0				0	489	122			
Arrive On Green	0.24	0.24	0.00				0.00	0.17	0.17			
Sat Flow, veh/h	218	5214	0				0	2909	704			
Grp Volume(v), veh/h	1741	2883	0				0	129	131			
Grp Sat Flow(s),veh/h/ln	1859	1702	0				0	1777	1744			
Q Serve(g_s), s	81.1	81.1	0.0				0.0	7.1	7.4			
Cycle Q Clear(g_c), s	81.1	81.1	0.0				0.0	7.1	7.4			
Prop In Lane	0.12		0.00				0.00		0.40			
Lane Grp Cap(c), veh/h	1371	2510	0				0	309	303			
V/C Ratio(X)	1.27	1.15	0.00				0.00	0.42	0.43			
Avail Cap(c_a), veh/h	1371	2510	0				0	309	303			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.6	41.6	0.0				0.0	40.5	40.6			
Incr Delay (d2), s/veh	127.3	72.1	0.0				0.0	4.1	4.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	68.8	62.0	0.0				0.0	3.5	3.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	168.9	113.7	0.0				0.0	44.6	45.1			
LnGrp LOS	F	F	A				A	D	D			
Approach Vol, veh/h	4624						260					
Approach Delay, s/veh	134.5						44.8					
Approach LOS	F						D					
Timer - Assigned Phs	2						8					
Phs Duration (G+Y+Rc), s	86.0						24.0					
Change Period (Y+Rc), s	4.9						4.9					
Max Green Setting (Gmax), s	81.1						19.1					
Max Q Clear Time (g_c+I1), s	83.1						9.4					
Green Ext Time (p_c), s	0.0						1.0					
Intersection Summary												
HCM 6th Ctrl Delay	129.7											
HCM 6th LOS	F											



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↑
Traffic Volume (veh/h)	23	1452	1168	56	166	192
Future Volume (veh/h)	23	1452	1168	56	166	192
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	25	1578	1270	61	180	209
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	34	3776	3418	164	524	241
Arrive On Green	0.02	0.76	1.00	1.00	0.15	0.15
Sat Flow, veh/h	1781	5149	5037	234	3456	1585
Grp Volume(v), veh/h	25	1578	866	465	180	209
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1784	1728	1585
Q Serve(g_s), s	1.6	13.2	0.0	0.0	5.5	15.2
Cycle Q Clear(g_c), s	1.6	13.2	0.0	0.0	5.5	15.2
Prop In Lane	1.00			0.13	1.00	1.00
Lane Grp Cap(c), veh/h	34	3776	2331	1251	524	241
V/C Ratio(X)	0.74	0.42	0.37	0.37	0.34	0.87
Avail Cap(c_a), veh/h	130	3776	2331	1251	1116	512
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.88	0.88	1.00	1.00
Uniform Delay (d), s/veh	57.6	5.1	0.0	0.0	44.8	48.9
Incr Delay (d2), s/veh	9.8	0.3	0.4	0.7	0.1	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.5	0.1	0.3	2.4	12.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.4	5.4	0.4	0.7	44.9	52.6
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1603	1331		389	
Approach Delay, s/veh		6.3	0.5		49.1	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		95.2		22.8	6.6	88.6
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 69		38.1	8.6	56.2
Max Q Clear Time (g_c+I1), s		15.2		17.2	3.6	2.0
Green Ext Time (p_c), s		38.9		0.7	0.0	29.5

Intersection Summary

HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	124	1451	19	16	1161	9	0	11	26	71	0	30
Future Volume (veh/h)	124	1451	19	16	1161	9	0	11	26	71	0	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	1668	22	18	1334	0	0	13	30	82	0	34
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	668	3565	47	60	1745		58	16	37	214	0	98
Arrive On Green	0.75	1.00	1.00	0.03	0.35	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5070	67	1781	4985	1585	1781	499	1152	3456	0	1577
Grp Volume(v), veh/h	143	1093	597	18	1334	0	0	0	43	82	0	34
Grp Sat Flow(s), veh/h/ln	1781	1662	1814	1781	1662	1585	1781	0	1651	1728	0	1577
Q Serve(g_s), s	2.8	0.0	0.0	1.2	28.0	0.0	0.0	0.0	3.1	2.7	0.0	2.4
Cycle Q Clear(g_c), s	2.8	0.0	0.0	1.2	28.0	0.0	0.0	0.0	3.1	2.7	0.0	2.4
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.70	1.00		1.00
Lane Grp Cap(c), veh/h	668	2337	1276	60	1745		58	0	54	214	0	98
V/C Ratio(X)	0.21	0.47	0.47	0.30	0.76		0.00	0.00	0.80	0.38	0.00	0.35
Avail Cap(c_a), veh/h	668	2337	1276	83	1745		92	0	85	996	0	454
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.5	0.0	0.0	55.6	34.0	0.0	0.0	0.0	56.7	53.2	0.0	53.1
Incr Delay (d2), s/veh	0.1	0.6	1.1	1.0	3.3	0.0	0.0	0.0	10.7	0.4	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.2	0.4	0.5	11.3	0.0	0.0	0.0	1.4	1.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.6	0.6	1.1	56.6	37.3	0.0	0.0	0.0	67.4	53.6	0.0	53.9
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1833			1352			43			116		
Approach Delay, s/veh	1.5			37.5			67.4			53.7		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.7			12.2	50.0	47.1		8.7				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	52.5			34.0	16.6	* 41		6.1				
Max Q Clear Time (g_c+13.2), s	2.0			4.7	4.8	30.0		5.1				
Green Ext Time (p_c), s	0.0	32.0		0.3	0.1	8.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	1053	309	770	1101	0	280	37	706	0	30	166
Future Volume (veh/h)	226	1053	309	770	1101	0	280	37	706	0	30	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	1132	332	828	1184	0	301	40	0	0	32	178
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	550	2678	1022	340	2001	0	372	201		0	165	230
Arrive On Green	0.31	0.54	0.54	0.10	0.32	0.00	0.11	0.11	0.00	0.00	0.09	0.09
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2619
Grp Volume(v), veh/h	243	1132	332	828	1184	0	301	40	0	0	32	178
Grp Sat Flow(s), veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1309
Q Serve(g_s), s	12.9	16.0	11.1	11.6	18.7	0.0	10.0	2.3	0.0	0.0	1.9	7.8
Cycle Q Clear(g_c), s	12.9	16.0	11.1	11.6	18.7	0.0	10.0	2.3	0.0	0.0	1.9	7.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	550	2678	1022	340	2001	0	372	201		0	165	230
V/C Ratio(X)	0.44	0.42	0.32	2.44	0.59	0.00	0.81	0.20		0.00	0.19	0.77
Avail Cap(c_a), veh/h	550	2678	1022	340	2001	0	1086	588		0	303	424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.62	0.62	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	16.3	9.4	53.2	33.8	0.0	51.5	48.0	0.0	0.0	49.9	52.7
Incr Delay (d2), s/veh	0.2	0.5	0.8	647.6	0.1	0.0	1.0	0.1	0.0	0.0	0.6	5.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.4	5.8	5.1	35.5	6.9	0.0	4.4	1.1	0.0	0.0	0.9	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.9	16.8	10.2	700.8	33.9	0.0	52.5	48.1	0.0	0.0	50.5	58.1
LnGrp LOS	C	B	B	F	C	A	D	D		A	D	E
Approach Vol, veh/h	1707				2012		341		A		210	
Approach Delay, s/veh	17.8				308.3		51.9				56.9	
Approach LOS	B				F		D				E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	69.1			15.3	42.1	43.0		17.6				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	1.6	30.3		19.1	4.6	* 38		37.1				
Max Q Clear Time (g_c+1/3), s	18.0			9.8	14.9	20.7		12.0				
Green Ext Time (p_c), s	0.0	9.5		0.5	0.0	12.5		0.7				

Intersection Summary

HCM 6th Ctrl Delay 159.4

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	0	58	7	0	510	31	421	13	750	439	54
Future Volume (veh/h)	65	0	58	7	0	510	31	421	13	750	439	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	5	62	0	0	550	33	448	14	798	467	57
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	6	70	0	373	609	62	634	20	781	1860	226
Arrive On Green	0.05	0.05	0.05	0.00	0.00	0.20	0.03	0.18	0.18	0.44	0.58	0.58
Sat Flow, veh/h	1781	113	1406	0	1870	3054	1781	3513	110	1781	3185	387
Grp Volume(v), veh/h	66	0	67	0	0	550	33	226	236	798	260	264
Grp Sat Flow(s), veh/h/ln	1781	0	1519	0	1870	1527	1781	1777	1846	1781	1777	1796
Q Serve(g_s), s	4.4	0.0	5.3	0.0	0.0	21.3	2.2	14.5	14.5	53.0	8.6	8.7
Cycle Q Clear(g_c), s	4.4	0.0	5.3	0.0	0.0	21.3	2.2	14.5	14.5	53.0	8.6	8.7
Prop In Lane	1.00		0.93	0.00		1.00	1.00		0.06	1.00		0.22
Lane Grp Cap(c), veh/h	88	0	75	0	373	609	62	321	333	781	1038	1048
V/C Ratio(X)	0.75	0.00	0.89	0.00	0.00	0.90	0.53	0.71	0.71	1.02	0.25	0.25
Avail Cap(c_a), veh/h	88	0	75	0	449	732	162	456	473	781	1073	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.7	0.0	57.1	0.0	0.0	47.3	57.4	46.5	46.6	34.0	12.3	12.3
Incr Delay (d2), s/veh	27.8	0.0	66.6	0.0	0.0	11.8	2.6	2.1	2.1	37.9	0.1	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.7	0.0	3.4	0.0	0.0	9.1	1.0	6.5	6.8	30.1	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.5	0.0	123.8	0.0	0.0	59.1	60.0	48.7	48.6	71.9	12.4	12.4
LnGrp LOS	F	A	F	A	A	E	E	D	D	F	B	B
Approach Vol, veh/h	133			550			495			1322		
Approach Delay, s/veh	104.3			59.1			49.4			48.3		
Approach LOS	F			E			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	57.0	25.8		10.0	8.2	74.6		28.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	53.0	31.0		6.0	11.0	73.0		29.0				
Max Q Clear Time (g_c+max), s	53.0	16.5		7.3	4.2	10.7		23.3				
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	2.7		0.8				

Intersection Summary

HCM 6th Ctrl Delay 53.9

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	278	11	7	183	208	291
Future Volume (veh/h)	278	11	7	183	208	291
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	314	0	8	0	229	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	857	450	649		396	
Arrive On Green	0.24	0.00	0.35	0.00	0.11	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	314	0	8	0	229	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	3.0	0.0	0.1	0.0	2.5	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.1	0.0	2.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	857	450	649		396	
V/C Ratio(X)	0.37	0.00	0.01		0.58	
Avail Cap(c_a), veh/h	972	510	649		1114	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.7	0.0	8.6	0.0	16.9	0.0
Incr Delay (d2), s/veh	0.3	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
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.0	0.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.0	0.0	8.7	0.0	18.3	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		314	8	A	229	A
Approach Delay, s/veh		13.0	8.7		18.3	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.7		8.6		18.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		11.0		13.0		14.0
Max Q Clear Time (g_c+l1), s		5.0		4.5		2.1
Green Ext Time (p_c), s		0.6		0.5		0.0

Intersection Summary

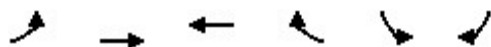
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

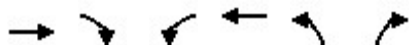
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	222	183	10	1	1
Future Vol, veh/h	9	222	183	10	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	258	213	12	1	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	225	0	-	0	368	113
Stage 1	-	-	-	-	219	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1341	-	-	-	605	918
Stage 1	-	-	-	-	796	-
Stage 2	-	-	-	-	863	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1341	-	-	-	600	918
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	863	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		10		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1341	-	-	-	726	
HCM Lane V/C Ratio	0.008	-	-	-	0.003	
HCM Control Delay (s)	7.7	0	-	-	10	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Volume (veh/h)	0	2965	3179	0	0	0
Future Volume (veh/h)	0	2965	3179	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	3223	3455	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2413	2413	0	9999	9999
Arrive On Green	0.00	0.38	0.38	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7221
Grp Volume(v), veh/h	0	3223	3455	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	15.0	15.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	15.0	15.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2413	2413	1006	773	2950
V/C Ratio(X)	0.00	1.34	1.43	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2413	2413	1006	773	2950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	12.5	12.5	0.0	7.2	7.2
Incr Delay (d2), s/veh	0.0	154.0	196.8	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	29.1	36.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	166.5	209.3	0.0	7.2	7.2
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		3223	3455	1077	1255	504
Approach Delay, s/veh		166.5	209.3		7.2	
Approach LOS		F	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				19.5	20.5	19.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				15.0	16.0	15.0
Max Q Clear Time (g_c+l1), s				17.0	2.0	17.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			7.2			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↑	↑	↑↑	↑↑↑↑	↑	↑
Traffic Volume (veh/h)	4265	58	115	1521	46	170
Future Volume (veh/h)	4265	58	115	1521	46	170
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	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	4586	62	124	1635	49	183
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4345	1095	135	4824	259	208
Arrive On Green	0.69	0.69	0.08	1.00	0.15	0.15
Sat Flow, veh/h	6537	1583	3456	6537	1781	1427
Grp Volume(v), veh/h	4586	62	124	1635	49	183
Grp Sat Flow(s),veh/h/ln	1570	1583	1728	1570	1781	1427
Q Serve(g_s), s	81.6	1.5	4.2	0.0	2.9	14.8
Cycle Q Clear(g_c), s	81.6	1.5	4.2	0.0	2.9	14.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4345	1095	135	4824	259	208
V/C Ratio(X)	1.06	0.06	0.92	0.34	0.19	0.88
Avail Cap(c_a), veh/h	4345	1095	135	4824	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	18.2	5.8	54.2	0.0	44.3	49.4
Incr Delay (d2), s/veh	25.6	0.0	52.5	0.2	0.1	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.4	2.7	0.1	1.3	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.8	5.8	106.7	0.2	44.4	54.2
LnGrp LOS	F	A	F	A	D	D
Approach Vol, veh/h	4648			1759	232	
Approach Delay, s/veh	43.3			7.7	52.1	
Approach LOS	D			A	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	9.0	86.9		95.9	22.1	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	4.6	66.8		75.8	32.0	
Max Q Clear Time (g_c+10), s	16.2	83.6		2.0	16.8	
Green Ext Time (p_c), s	0.0	0.0		46.5	0.3	
Intersection Summary						
HCM 6th Ctrl Delay			34.2			
HCM 6th LOS			C			
Notes						
User approved pedestrian interval to be less than phase max green.						

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK



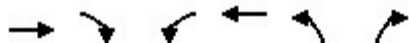
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰	↑	↰
Traffic Volume (veh/h)	9	4324	0	11	1290	60	0	0	0	5	0	5
Future Volume (veh/h)	9	4324	0	11	1290	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	4600	0	12	1372	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4067	0	60	5207	243	0	49	0	107	0	41
Arrive On Green	0.02	1.00	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	6196	289	0	1870	0	1741	0	1557
Grp Volume(v), veh/h	10	4600	0	12	1043	393	0	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	0	1781	1570	1774	0	1870	0	1741	0	1557
Q Serve(g_s), s	0.7	0.0	0.0	0.8	5.4	5.4	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.8	5.4	5.4	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.16	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4067	0	60	3959	1491	0	49	0	107	0	41
V/C Ratio(X)	0.59	1.13	0.00	0.20	0.26	0.26	0.00	0.00	0.00	0.05	0.00	0.12
Avail Cap(c_a), veh/h	60	4067	0	60	3959	1491	0	507	0	533	0	422
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.95	0.95	0.95	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	0.0	55.4	1.9	1.9	0.0	0.0	0.0	56.1	0.0	56.1
Incr Delay (d2), s/veh	1.1	59.3	0.0	0.6	0.2	0.4	0.0	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 BackOfQ(50%),veh/ln	0.3	22.3	0.0	0.3	0.8	1.0	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	59.3	0.0	56.0	2.1	2.3	0.0	0.0	0.0	56.2	0.0	56.6
LnGrp LOS	E	F	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	4610			1448			0			10		
Approach Delay, s/veh	59.3			2.6			0.0			56.4		
Approach LOS	E			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	101.6			8.0	5.5	104.5		8.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.7	7.4		0.0				
Green Ext Time (p_c), s	0.0	65.1		0.0	0.0	30.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay 45.7
HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	4308	1	15	1438	0	18
Future Volume (veh/h)	4308	1	15	1438	0	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	4488	1	16	1498	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4086	1	23	4175	0	117
Arrive On Green	0.79	0.79	0.01	0.84	0.00	0.10
Sat Flow, veh/h	5312	1	1781	5149	0	1223
Grp Volume(v), veh/h	2897	1592	16	1498	0	20
Grp Sat Flow(s), veh/h/ln	1662	1826	1781	1662	0	1287
Q Serve(g_s), s	113.9	113.9	1.3	10.0	0.0	2.0
Cycle Q Clear(g_c), s	113.9	113.9	1.3	10.0	0.0	2.0
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2638	1449	23	4175	0	123
V/C Ratio(X)	1.10	1.10	0.68	0.36	0.00	0.16
Avail Cap(c_a), veh/h	2638	1449	50	4248	0	162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	14.8	70.5	2.7	0.0	59.6
Incr Delay (d2), s/veh	50.9	55.4	12.3	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	48.5	55.1	0.7	2.2	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	65.7	70.2	82.8	2.9	0.0	60.2
LnGrp LOS	F	F	F	A	A	E
Approach Vol, veh/h	4489			1514	20	
Approach Delay, s/veh	67.3			3.7	60.2	
Approach LOS	E			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	63	119.1		125.4	18.1	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	113.9			122.3	18.1	
Max Q Clear Time (g_c+I), s	113.9			12.0	4.0	
Green Ext Time (p_c), s	0.0	0.0		55.3	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			51.3			
HCM 6th LOS			D			

Intersection						
Int Delay, s/veh	629.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	623	0	0	2501	637
Future Vol, veh/h	0	623	0	0	2501	637
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	663	0	0	2661	678

Major/Minor	Minor2		Major2	
Conflicting Flow All	3000	1673	-	0
Stage 1	3000	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	26	~ 72	-	-
Stage 1	12	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	26	~ 72	-	-
Mov Cap-2 Maneuver	26	-	-	-
Stage 1	12	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$	3802.6	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	72	-	-
HCM Lane V/C Ratio	-	9.205	-	-
HCM Control Delay (s)	\$	3802.6	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	77.1	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2035 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	983	27	18	913	384	32	61	36	261	28	172
Future Volume (veh/h)	122	983	27	18	913	384	32	61	36	261	28	172
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	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	1104	30	20	1026	431	36	69	40	293	31	193
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	1677	517	394	2388	737	204	398	249	409	553	486
Arrive On Green	0.03	0.11	0.11	0.22	0.47	0.47	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1781	5106	1573	1781	5106	1577	509	1280	799	1270	1777	1562
Grp Volume(v), veh/h	137	1104	30	20	1026	431	68	0	77	293	31	193
Grp Sat Flow(s),veh/h/ln	1781	1702	1573	1781	1702	1577	1055	0	1532	1270	1777	1562
Q Serve(g_s), s	9.2	24.9	2.1	1.1	16.1	24.0	2.3	0.0	4.4	26.1	1.5	11.7
Cycle Q Clear(g_c), s	9.2	24.9	2.1	1.1	16.1	24.0	14.0	0.0	4.4	30.5	1.5	11.7
Prop In Lane	1.00		1.00	1.00		1.00	0.53		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	166	1677	517	394	2388	737	374	0	477	409	553	486
V/C Ratio(X)	0.83	0.66	0.06	0.05	0.43	0.58	0.18	0.00	0.16	0.72	0.06	0.40
Avail Cap(c_a), veh/h	276	2179	671	394	2388	737	500	0	614	523	712	626
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.92	0.92	0.92	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	47.0	36.8	36.8	21.3	23.4	33.1	0.0	30.0	41.0	29.0	32.5
Incr Delay (d2), s/veh	3.6	1.8	0.2	0.0	0.5	3.1	0.1	0.0	0.1	7.1	0.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	11.6	0.8	0.5	6.2	9.1	1.6	0.0	1.6	8.9	0.7	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	48.9	37.0	36.8	21.8	26.5	33.2	0.0	30.0	48.1	29.1	34.0
LnGrp LOS	E	D	D	D	C	C	C	A	C	D	C	C
Approach Vol, veh/h		1271			1477			145			517	
Approach Delay, s/veh		49.9			23.4			31.5			41.7	
Approach LOS		D			C			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	32.6	45.1		42.2	15.6	62.2		42.2				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	5.7	* 51		48.1	18.6	37.9		48.1				
Max Q Clear Time (g_c+I1), s	3.1	26.9		32.5	11.2	26.0		16.0				
Green Ext Time (p_c), s	0.0	12.5		4.9	0.1	9.8		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			36.4									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	129	563	1	0	515	621	1	0	0	547	0	90
Future Volume (veh/h)	129	563	1	0	515	621	1	0	0	547	0	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	619	1	0	566	0	1	0	0	693	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	953	2	683	1713		52	0	46	801	421	0
Arrive On Green	0.09	0.18	0.18	0.00	0.16	0.00	0.03	0.00	0.00	0.22	0.00	0.00
Sat Flow, veh/h	1781	5264	9	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	142	400	220	0	566	0	1	0	0	693	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	9.5	13.1	13.1	0.0	17.0	0.0	0.1	0.0	0.0	22.5	0.0	0.0
Cycle Q Clear(g_c), s	9.5	13.1	13.1	0.0	17.0	0.0	0.1	0.0	0.0	22.5	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	157	616	338	683	1713		52	0	46	801	421	0
V/C Ratio(X)	0.90	0.65	0.65	0.00	0.33		0.02	0.00	0.00	0.86	0.00	0.00
Avail Cap(c_a), veh/h	157	814	447	683	1713		445	0	396	1098	577	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.90	0.00	1.00	0.00	0.00	0.84	0.00	0.00
Uniform Delay (d), s/veh	54.2	45.6	45.6	0.0	33.3	0.0	56.6	0.0	0.0	44.8	0.0	0.0
Incr Delay (d2), s/veh	43.6	5.2	9.3	0.0	0.5	0.0	0.1	0.0	0.0	3.7	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 BackOfQ(50%),veh/ln	6.0	5.8	6.8	0.0	8.1	0.0	0.0	0.0	0.0	10.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.8	50.8	54.9	0.0	33.7	0.0	56.7	0.0	0.0	48.4	0.0	0.0
LnGrp LOS	F	D	D	A	C		E	A	A	D	A	A
Approach Vol, veh/h	762			566			A			693		
Approach Delay, s/veh	60.8			33.7			56.7			48.4		
Approach LOS	E			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	51.9	26.8		32.9	15.0	63.7		8.4				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 29		37.0	10.6	21.3		30.0				
Max Q Clear Time (g_c+I), s	10.0	15.1		24.5	11.5	19.0		2.1				
Green Ext Time (p_c), s	0.0	6.6		1.3	0.0	1.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	243	156	93	452	205	239	1259	93	131	1146	178
Future Volume (veh/h)	283	243	156	93	452	205	239	1259	93	131	1146	178
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	301	259	166	99	481	218	254	1339	99	139	1219	189
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	553	341	120	523	310	300	1635	120	183	1612	715
Arrive On Green	0.18	0.26	0.26	0.07	0.15	0.15	0.09	0.49	0.49	0.05	0.45	0.45
Sat Flow, veh/h	1781	2095	1293	1781	3554	1537	3456	3354	247	3456	3554	1576
Grp Volume(v), veh/h	301	218	207	99	481	218	254	708	730	139	1219	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1611	1781	1777	1537	1728	1777	1824	1728	1777	1576
Q Serve(g_s), s	25.0	15.5	16.3	8.2	20.0	13.0	10.9	50.9	51.4	6.0	42.8	6.0
Cycle Q Clear(g_c), s	25.0	15.5	16.3	8.2	20.0	13.0	10.9	50.9	51.4	6.0	42.8	6.0
Prop In Lane	1.00		0.80	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	322	469	425	120	523	310	300	866	889	183	1612	715
V/C Ratio(X)	0.94	0.47	0.49	0.83	0.92	0.70	0.85	0.82	0.82	0.76	0.76	0.26
Avail Cap(c_a), veh/h	410	470	426	197	524	310	498	866	889	221	1612	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	46.3	46.6	69.1	63.1	27.9	67.5	32.7	32.9	70.1	34.1	7.5
Incr Delay (d2), s/veh	23.1	0.3	0.3	5.0	19.3	5.3	3.2	8.4	8.4	9.1	3.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	6.9	6.6	3.9	10.5	5.3	5.0	23.7	24.6	2.9	19.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.7	46.6	47.0	74.1	82.4	33.2	70.7	41.2	41.3	79.1	37.4	8.4
LnGrp LOS	F	D	D	E	F	C	E	D	D	E	D	A
Approach Vol, veh/h	726			798			1692			1547		
Approach Delay, s/veh	62.1			67.9			45.7			37.6		
Approach LOS	E			E			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.3	78.4	14.5	44.8	17.4	73.4	32.3	27.0				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	2.6	* 65	16.6	39.7	21.6	52.8	34.5	* 22				
Max Q Clear Time (g_c+1/3), s	19.6	53.4	10.2	18.3	12.9	44.8	27.0	22.0				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.9	0.1	2.8	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	49.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	166	72	412	622	108	169	359	75	106	320	111
Future Volume (veh/h)	120	166	72	412	622	108	169	359	75	106	320	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	178	77	443	669	116	182	386	81	114	344	119
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	1009	448	471	715	124	211	708	306	141	605	197
Arrive On Green	0.09	0.28	0.28	0.26	0.46	0.46	0.12	0.20	0.20	0.08	0.16	0.16
Sat Flow, veh/h	1781	3554	1577	1781	1552	269	1781	3554	1539	1781	3778	1228
Grp Volume(v), veh/h	129	178	77	443	0	785	182	386	81	114	308	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1577	1781	0	1821	1781	1777	1539	1781	1702	1602
Q Serve(g_s), s	7.8	4.1	4.0	26.7	0.0	44.9	11.0	10.7	4.9	6.9	9.2	9.9
Cycle Q Clear(g_c), s	7.8	4.1	4.0	26.7	0.0	44.9	11.0	10.7	4.9	6.9	9.2	9.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		0.77
Lane Grp Cap(c), veh/h	156	1009	448	471	0	839	211	708	306	141	545	256
V/C Ratio(X)	0.82	0.18	0.17	0.94	0.00	0.94	0.86	0.55	0.26	0.81	0.56	0.61
Avail Cap(c_a), veh/h	172	1077	478	529	0	917	224	945	409	258	970	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	49.3	29.6	29.6	39.5	0.0	28.1	47.6	39.5	37.2	49.7	42.6	42.9
Incr Delay (d2), s/veh	22.8	0.0	0.1	22.7	0.0	15.6	25.2	1.2	0.8	4.1	1.6	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.8	1.6	14.6	0.0	22.7	6.3	4.7	1.9	3.2	3.9	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.0	29.7	29.7	62.2	0.0	43.7	72.8	40.7	38.0	53.8	44.2	47.0
LnGrp LOS	E	C	C	E	A	D	E	D	D	D	D	D
Approach Vol, veh/h	384			1228			649			577		
Approach Delay, s/veh	43.9			50.4			49.4			46.9		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.1	27.2	33.5	36.1	17.4	22.9	14.0	55.5				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	15.9	29.2	32.6	33.3	13.8	31.3	10.6	55.3				
Max Q Clear Time (g_c+I), s	19.9	12.7	28.7	6.1	13.0	11.9	9.8	46.9				
Green Ext Time (p_c), s	0.1	4.1	0.3	0.9	0.0	4.5	0.0	3.7				

Intersection Summary

HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	56	42	319	7	9	46	545	524	122	713	19
Future Volume (veh/h)	30	56	42	319	7	9	46	545	524	122	713	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	62	46	351	8	10	51	599	576	134	784	21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	151	112	337	232	290	64	1096	779	140	1793	48
Arrive On Green	0.03	0.15	0.15	0.19	0.31	0.31	0.04	0.31	0.31	0.08	0.35	0.35
Sat Flow, veh/h	1781	995	738	1781	754	943	1781	3554	1554	1781	5108	137
Grp Volume(v), veh/h	33	0	108	351	0	18	51	599	576	134	522	283
Grp Sat Flow(s),veh/h/ln	1781	0	1732	1781	0	1697	1781	1777	1554	1781	1702	1841
Q Serve(g_s), s	1.3	0.0	4.0	13.5	0.0	0.5	2.0	10.0	21.1	5.3	8.4	8.4
Cycle Q Clear(g_c), s	1.3	0.0	4.0	13.5	0.0	0.5	2.0	10.0	21.1	5.3	8.4	8.4
Prop In Lane	1.00		0.43	1.00		0.56	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	60	0	263	337	0	522	64	1096	779	140	1195	646
V/C Ratio(X)	0.55	0.00	0.41	1.04	0.00	0.03	0.80	0.55	0.74	0.96	0.44	0.44
Avail Cap(c_a), veh/h	147	0	753	337	0	899	100	1096	779	140	1195	646
HCM Platoon Ratio	1.00	1.00	1.00	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	33.9	0.0	27.4	28.9	0.0	17.3	34.1	20.5	14.3	32.7	17.7	17.8
Incr Delay (d2), s/veh	7.7	0.0	0.4	60.1	0.0	0.0	10.0	0.9	4.3	62.8	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.7	11.2	0.0	0.2	1.0	4.0	7.6	4.6	3.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	27.7	89.0	0.0	17.3	44.1	21.4	18.6	95.5	18.0	18.2
LnGrp LOS	D	A	C	F	A	B	D	C	B	F	B	B
Approach Vol, veh/h	141		369			1226			939			
Approach Delay, s/veh	31.0		85.5			21.0			29.1			
Approach LOS	C		F			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.7	18.0	15.6	7.0	30.7	6.9	26.7					
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.8	4.4	5.7	4.5	* 4.8				
Max Green Setting (Gmax), s	5.6	* 22	13.5	* 31	4.0	22.9	5.9	* 38				
Max Q Clear Time (g_c+I1), s	17.3	23.1	15.5	6.0	4.0	10.4	3.3	2.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	4.1	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

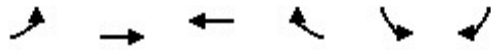
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↘	↘	↘
Traffic Volume (veh/h)	1609	2392	3822	10	0	117
Future Volume (veh/h)	1609	2392	3822	10	0	117
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1828	2718	4343	0	0	133
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1360	2988	2797		132	547
Arrive On Green	0.27	0.86	0.56	0.00	0.00	0.07
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1828	2718	4343	0	0	133
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	40.6	75.3	84.2	0.0	0.0	9.0
Cycle Q Clear(g_c), s	40.6	75.3	84.2	0.0	0.0	9.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1360	2988	2797		132	547
V/C Ratio(X)	1.34	0.91	1.55		0.00	0.24
Avail Cap(c_a), veh/h	1360	2988	2797		202	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	0.00	1.00
Uniform Delay (d), s/veh	54.7	6.7	32.9	0.0	0.0	35.1
Incr Delay (d2), s/veh	160.0	5.4	248.8	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	36.8	16.3	95.8	0.0	0.0	9.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	214.7	12.0	281.7	0.0	0.0	35.4
LnGrp LOS	F	B	F		A	D
Approach Vol, veh/h		4546	4343	A	133	
Approach Delay, s/veh		93.5	281.7		35.4	
Approach LOS		F	F		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		134.5		15.5	45.0	89.5
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	40.6	* 79
Max Q Clear Time (g_c+I1), s		77.3		11.0	42.6	86.2
Green Ext Time (p_c), s		45.7		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			183.3			
HCM 6th LOS			F			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	692	1018	85	59	1201	45	150	301	75	52	181	816
Future Volume (veh/h)	692	1018	85	59	1201	45	150	301	75	52	181	816
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	744	1095	91	63	1291	48	161	324	81	56	195	877
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	751	2477	206	140	2124	79	172	475	380	72	687	1085
Arrive On Green	0.22	0.75	0.75	0.16	1.00	1.00	0.10	0.25	0.25	0.04	0.19	0.19
Sat Flow, veh/h	3456	3318	275	1781	3494	130	1781	1870	1499	1781	3554	2475
Grp Volume(v), veh/h	744	586	600	63	656	683	161	324	81	56	195	877
Grp Sat Flow(s),veh/h/ln	1728	1777	1816	1781	1777	1847	1781	1870	1499	1781	1777	1237
Q Serve(g_s), s	32.2	18.7	18.7	4.8	0.0	0.0	13.5	23.5	6.4	4.7	7.0	29.0
Cycle Q Clear(g_c), s	32.2	18.7	18.7	4.8	0.0	0.0	13.5	23.5	6.4	4.7	7.0	29.0
Prop In Lane	1.00		0.15	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	751	1327	1356	140	1080	1123	172	475	380	72	687	1085
V/C Ratio(X)	0.99	0.44	0.44	0.45	0.61	0.61	0.94	0.68	0.21	0.78	0.28	0.81
Avail Cap(c_a), veh/h	751	1327	1356	140	1080	1123	172	475	380	90	687	1085
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.72	0.72	0.72	0.98	0.98	0.98	0.75	0.75	0.75
Uniform Delay (d), s/veh	58.5	7.2	7.2	60.3	0.0	0.0	67.3	50.5	44.1	71.3	51.6	58.2
Incr Delay (d2), s/veh	30.4	1.1	1.0	7.3	1.8	1.8	48.7	4.0	0.3	17.4	0.2	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.0	6.7	6.9	2.4	0.6	0.6	8.4	11.5	2.4	2.5	3.2	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.0	8.3	8.2	67.6	1.8	1.8	116.0	54.5	44.5	88.7	51.9	61.9
LnGrp LOS	F	A	A	E	A	A	F	D	D	F	D	E
Approach Vol, veh/h	1930			1402			566			1128		
Approach Delay, s/veh	39.4			4.8			70.6			61.5		
Approach LOS	D			A			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	40.4	43.0	16.2	118.9	19.4	34.0	37.0	98.1				
Change Period (Y+Rc), s	4.4	4.9	4.4	* 5.8	4.9	* 5	4.4	5.8				
Max Green Setting (Gmax), s	7.6	36.0	11.8	* 76	14.5	* 29	32.6	54.3				
Max Q Clear Time (g_c+I), s	10.7	25.5	6.8	20.7	15.5	31.0	34.2	2.0				
Green Ext Time (p_c), s	0.0	1.7	0.0	15.0	0.0	0.0	0.0	10.1				

Intersection Summary

HCM 6th Ctrl Delay	38.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑						↑↑	↵↵
Traffic Volume (veh/h)	0	1034	84	34	191	0	0	0	0	197	264	1143
Future Volume (veh/h)	0	1034	84	34	191	0	0	0	0	197	264	1143
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1162	94	38	215	0				221	297	1284
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1377	111	817	3217	0				658	978	1237
Arrive On Green	0.00	0.83	0.83	0.46	0.91	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3419	269	1781	3647	0				1438	2137	2706
Grp Volume(v), veh/h	0	620	636	38	215	0				276	242	1284
Grp Sat Flow(s),veh/h/ln	0	1777	1817	1781	1777	0				1798	1777	1353
Q Serve(g_s), s	0.0	29.8	30.1	1.8	0.9	0.0				14.8	12.8	68.6
Cycle Q Clear(g_c), s	0.0	29.8	30.1	1.8	0.9	0.0				14.8	12.8	68.6
Prop In Lane	0.00		0.15	1.00		0.00				0.80		1.00
Lane Grp Cap(c), veh/h	0	736	752	817	3217	0				822	813	1237
V/C Ratio(X)	0.00	0.84	0.85	0.05	0.07	0.00				0.34	0.30	1.04
Avail Cap(c_a), veh/h	0	736	752	817	3217	0				822	813	1237
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.72	0.72	0.48	0.48	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.1	10.1	22.5	0.7	0.0				26.1	25.6	40.7
Incr Delay (d2), s/veh	0.0	8.5	8.4	0.0	0.0	0.0				1.1	0.9	35.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	6.1	0.7	0.1	0.0				6.8	5.8	28.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.6	18.5	22.5	0.7	0.0				27.2	26.5	76.6
LnGrp LOS	A	B	B	C	A	A				C	C	F
Approach Vol, veh/h		1256			253						1802	
Approach Delay, s/veh		18.6			4.0						62.3	
Approach LOS		B			A						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.0	67.0		74.0		144.0						
Change Period (Y+Rc), s	6.6	* 4.9		5.4		6.6						
Max Green Setting (Gmax), s	4.6	* 62		68.6		69.4						
Max Q Clear Time (g_c+I), s	13.8	32.1		70.6		2.9						
Green Ext Time (p_c), s	0.0	2.7		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	41.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
28: India St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4111						11				
Traffic Volume (veh/h)	57	2269	0	0	0	0	0	92	223	0	0	0
Future Volume (veh/h)	57	2269	0	0	0	0	0	92	223	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	61	2440	0				0	99	240			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	82	3497	0				0	536	449			
Arrive On Green	0.18	0.18	0.00				0.00	0.30	0.30			
Sat Flow, veh/h	153	6798	0				0	1870	1488			
Grp Volume(v), veh/h	745	1756	0				0	99	240			
Grp Sat Flow(s),veh/h/ln	1863	1609	0				0	1777	1488			
Q Serve(g_s), s	22.8	20.4	0.0				0.0	2.5	8.1			
Cycle Q Clear(g_c), s	22.8	20.4	0.0				0.0	2.5	8.1			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	997	2582	0				0	536	449			
V/C Ratio(X)	0.75	0.68	0.00				0.00	0.18	0.53			
Avail Cap(c_a), veh/h	997	2582	0				0	536	449			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	20.9	19.9	0.0				0.0	15.5	17.4			
Incr Delay (d2), s/veh	5.1	1.5	0.0				0.0	0.8	4.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ft	2.4	8.9	0.0				0.0	1.1	3.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	21.4	0.0				0.0	16.3	22.0			
LnGrp LOS	C	C	A				A	B	C			
Approach Vol, veh/h		2501						339				
Approach Delay, s/veh		22.7						20.3				
Approach LOS		C						C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		37.0						23.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		32.1						18.1				
Max Q Clear Time (g_c+I1), s		24.8						10.1				
Green Ext Time (p_c), s		6.7						1.4				
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	2629	109	0	0	0	0	0	0	187	380	0
Future Volume (veh/h)	0	2629	109	0	0	0	0	0	0	187	380	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2683	111							191	388	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3287	135							573	1143	0
Arrive On Green	0.00	0.17	0.17							0.32	0.32	0.00
Sat Flow, veh/h	0	6645	263							1781	3647	0
Grp Volume(v), veh/h	0	2026	768							191	388	0
Grp Sat Flow(s),veh/h/ln	0	1609	1821							1781	1777	0
Q Serve(g_s), s	0.0	24.3	24.4							4.9	5.0	0.0
Cycle Q Clear(g_c), s	0.0	24.3	24.4							4.9	5.0	0.0
Prop In Lane	0.00		0.14							1.00		0.00
Lane Grp Cap(c), veh/h	0	2485	938							573	1143	0
V/C Ratio(X)	0.00	0.82	0.82							0.33	0.34	0.00
Avail Cap(c_a), veh/h	0	2485	938							573	1143	0
HCM Platoon Ratio	1.00	0.33	0.33							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	22.1	22.2							15.5	15.5	0.0
Incr Delay (d2), s/veh	0.0	3.1	7.9							1.6	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.8	13.6							2.1	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.2	30.1							17.0	16.3	0.0
LnGrp LOS	A	C	C							B	B	A
Approach Vol, veh/h		2794									579	
Approach Delay, s/veh		26.6									16.5	
Approach LOS		C									B	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		35.8	24.2									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		30.9	19.3									
Max Q Clear Time (g_c+l1), s		26.4	7.0									
Green Ext Time (p_c), s		4.3	2.6									
Intersection Summary												
HCM 6th Ctrl Delay			24.9									
HCM 6th LOS			C									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑						↑↑				
Traffic Volume (veh/h)	182	2259	0	0	0	0	0	109	46	0	0	0
Future Volume (veh/h)	182	2259	0	0	0	0	0	109	46	0	0	0
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			
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	198	2455	0				0	118	50			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	926	2655	0				0	782	316			
Arrive On Green	0.17	0.17	0.00				0.00	0.32	0.32			
Sat Flow, veh/h	1781	5274	0				0	2564	997			
Grp Volume(v), veh/h	198	2455	0				0	83	85			
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1777	1691			
Q Serve(g_s), s	5.7	28.4	0.0				0.0	2.0	2.2			
Cycle Q Clear(g_c), s	5.7	28.4	0.0				0.0	2.0	2.2			
Prop In Lane	1.00		0.00				0.00		0.59			
Lane Grp Cap(c), veh/h	926	2655	0				0	563	535			
V/C Ratio(X)	0.21	0.92	0.00				0.00	0.15	0.16			
Avail Cap(c_a), veh/h	926	2655	0				0	563	535			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	14.3	23.7	0.0				0.0	14.7	14.7			
Incr Delay (d2), s/veh	0.5	6.9	0.0				0.0	0.6	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	14.2	0.0				0.0	0.8	0.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	30.6	0.0				0.0	15.3	15.4			
LnGrp LOS	B	C	A				A	B	B			
Approach Vol, veh/h												
		2653							168			
Approach Delay, s/veh												
		29.4							15.3			
Approach LOS												
		C							B			
Timer - Assigned Phs												
		2							8			
Phs Duration (G+Y+Rc), s												
		36.1							23.9			
Change Period (Y+Rc), s												
		4.9							4.9			
Max Green Setting (Gmax), s												
		31.2							19.0			
Max Q Clear Time (g_c+I1), s												
		30.4							4.2			
Green Ext Time (p_c), s												
		0.8							0.8			
Intersection Summary												
HCM 6th Ctrl Delay												
			28.6									
HCM 6th LOS												
			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  		 				 	 
Traffic Volume (veh/h)	259	478	209	598	1429	0	180	42	383	0	32	176
Future Volume (veh/h)	259	478	209	598	1429	0	180	42	383	0	32	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	267	493	215	616	1473	0	186	43	0	0	33	181
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	294	1271	580	1340	3068	0	428	232		0	111	153
Arrive On Green	0.17	0.25	0.25	0.39	0.49	0.00	0.12	0.12	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1503	3456	6537	0	3456	1870	1585	0	1870	2578
Grp Volume(v), veh/h	267	493	215	616	1473	0	186	43	0	0	33	181
Grp Sat Flow(s),veh/h/ln	1781	1662	1503	1728	1570	0	1728	1870	1585	0	1870	1289
Q Serve(g_s), s	17.7	9.8	12.4	15.9	18.8	0.0	6.0	2.5	0.0	0.0	2.0	7.1
Cycle Q Clear(g_c), s	17.7	9.8	12.4	15.9	18.8	0.0	6.0	2.5	0.0	0.0	2.0	7.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	294	1271	580	1340	3068	0	428	232		0	111	153
V/C Ratio(X)	0.91	0.39	0.37	0.46	0.48	0.00	0.43	0.19		0.00	0.30	1.19
Avail Cap(c_a), veh/h	350	1271	580	1340	3068	0	1066	577		0	111	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	37.0	27.0	27.4	20.5	0.0	48.7	47.1	0.0	0.0	54.1	56.5
Incr Delay (d2), s/veh	22.1	0.9	1.8	0.0	0.0	0.0	0.2	0.1	0.0	0.0	1.5	131.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.4	4.0	5.6	6.3	6.5	0.0	2.6	1.2	0.0	0.0	1.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.3	37.9	28.8	27.4	20.6	0.0	48.9	47.3	0.0	0.0	55.6	188.3
LnGrp LOS	E	D	C	C	C	A	D	D		A	E	F
Approach Vol, veh/h		975			2089			229	A		214	
Approach Delay, s/veh		45.0			22.6			48.6			167.9	
Approach LOS		D			C			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	51.9	36.3		12.0	24.2	64.0		19.8				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	25.4	* 31		7.1	23.6	32.7		37.0				
Max Q Clear Time (g_c+I1), s	17.9	14.4		9.1	19.7	20.8		8.0				
Green Ext Time (p_c), s	0.8	6.2		0.0	0.1	10.4		0.5				

Intersection Summary

HCM 6th Ctrl Delay 39.4

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	↑↑
Traffic Volume (veh/h)	0	608	0	0	1505	1183
Future Volume (veh/h)	0	608	0	0	1505	1183
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				0.99
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	676			1672	1314
Peak Hour Factor	0.90	0.90			0.90	0.90
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3123	1446
Arrive On Green	0.00	0.00			0.92	0.92
Sat Flow, veh/h	0				3572	1576
Grp Volume(v), veh/h	0.0				1672	1314
Grp Sat Flow(s),veh/h/ln					1702	1576
Q Serve(g_s), s					4.3	22.5
Cycle Q Clear(g_c), s					4.3	22.5
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					3123	1446
V/C Ratio(X)					0.54	0.91
Avail Cap(c_a), veh/h					3218	1490
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.4	1.1
Incr Delay (d2), s/veh					0.2	8.4
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.5	9.5
LnGrp LOS					A	A
Approach Vol, veh/h					2986	
Approach Delay, s/veh					4.5	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					54.5	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					51.5	
Max Q Clear Time (g_c+I1), s					24.5	
Green Ext Time (p_c), s					25.4	
Intersection Summary						
HCM 6th Ctrl Delay			4.5			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	126	244	76	383	574	141	159	342	147	96	326	103
Future Volume (veh/h)	126	244	76	383	574	141	159	342	147	96	326	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	262	82	412	617	152	171	368	158	103	351	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	1039	460	438	646	159	192	746	324	129	673	200
Arrive On Green	0.09	0.29	0.29	0.25	0.45	0.45	0.11	0.21	0.21	0.07	0.17	0.17
Sat Flow, veh/h	1781	3554	1574	1781	1448	357	1781	3554	1546	1781	3855	1145
Grp Volume(v), veh/h	135	262	82	412	0	769	171	368	158	103	307	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1574	1781	0	1804	1781	1777	1546	1781	1702	1596
Q Serve(g_s), s	7.9	6.0	4.1	24.0	0.0	43.5	10.0	9.7	9.5	6.0	8.7	9.4
Cycle Q Clear(g_c), s	7.9	6.0	4.1	24.0	0.0	43.5	10.0	9.7	9.5	6.0	8.7	9.4
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.72
Lane Grp Cap(c), veh/h	163	1039	460	438	0	806	192	746	324	129	595	279
V/C Ratio(X)	0.83	0.25	0.18	0.94	0.00	0.95	0.89	0.49	0.49	0.80	0.52	0.55
Avail Cap(c_a), veh/h	172	1108	490	439	0	833	192	953	415	227	981	460
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	47.3	28.6	28.0	39.2	0.0	28.3	46.6	36.9	36.8	48.3	39.6	39.9
Incr Delay (d2), s/veh	24.4	0.0	0.1	28.1	0.0	20.6	35.7	0.9	2.1	4.2	1.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	2.6	1.6	13.9	0.0	22.9	6.3	4.2	3.8	2.8	3.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.6	28.7	28.0	67.3	0.0	48.8	82.3	37.8	38.9	52.5	40.9	43.0
LnGrp LOS	E	C	C	E	A	D	F	D	D	D	D	D
Approach Vol, veh/h	479			1181			697			565		
Approach Delay, s/veh	40.7			55.3			49.0			43.6		
Approach LOS	D			E			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	27.5	27.5	30.4	35.9	15.8	23.8	14.1	52.2				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	28.5	28.4	26.1	33.0	11.4	30.5	10.2	48.9				
Max Q Clear Time (g_c+I), s	11.7	11.7	26.0	8.0	12.0	11.4	9.9	45.5				
Green Ext Time (p_c), s	0.0	4.4	0.0	1.3	0.0	4.4	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay	49.1
HCM 6th LOS	D

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	44	48	346	14	88	33	529	517	39	782	16
Future Volume (veh/h)	32	44	48	346	14	88	33	529	517	39	782	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		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	46	51	364	15	93	35	557	544	41	823	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	140	156	392	81	500	50	1063	812	56	1555	32
Arrive On Green	0.03	0.17	0.17	0.22	0.36	0.36	0.03	0.30	0.30	0.03	0.30	0.30
Sat Flow, veh/h	1781	806	893	1781	224	1388	1781	3554	1548	1781	5144	106
Grp Volume(v), veh/h	34	0	97	364	0	108	35	557	544	41	544	296
Grp Sat Flow(s),veh/h/ln	1781	0	1699	1781	0	1612	1781	1777	1548	1781	1702	1846
Q Serve(g_s), s	1.3	0.0	3.5	14.1	0.0	3.2	1.4	9.2	18.4	1.6	9.4	9.4
Cycle Q Clear(g_c), s	1.3	0.0	3.5	14.1	0.0	3.2	1.4	9.2	18.4	1.6	9.4	9.4
Prop In Lane	1.00		0.53	1.00		0.86	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	61	0	296	392	0	580	50	1063	812	56	1029	558
V/C Ratio(X)	0.55	0.00	0.33	0.93	0.00	0.19	0.70	0.52	0.67	0.73	0.53	0.53
Avail Cap(c_a), veh/h	152	0	747	392	0	908	101	1074	816	109	1029	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	33.5	0.0	25.5	26.9	0.0	15.5	33.9	20.5	12.6	33.8	20.4	20.4
Incr Delay (d2), s/veh	7.6	0.0	0.2	28.3	0.0	0.1	6.4	0.8	2.6	6.8	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 BackOfQ(50%),veh/ln	0.7	0.0	1.4	8.8	0.0	1.2	0.7	3.6	6.2	0.8	3.5	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	25.7	55.3	0.0	15.5	40.3	21.3	15.2	40.6	20.9	21.4
LnGrp LOS	D	A	C	E	A	B	D	C	B	D	C	C
Approach Vol, veh/h	131					472		1136		881		
Approach Delay, s/veh	29.7					46.2		19.0		22.0		
Approach LOS	C					D		B		C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.6	26.8	20.0	17.1	6.4	27.0	6.9	30.2				
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.8	4.4	5.7	4.5	* 4.8				
Max Green Setting (Gmax), s	1.3	* 21	15.5	* 31	4.0	20.9	6.0	* 40				
Max Q Clear Time (g_c+I), s	13.6	20.4	16.1	5.5	3.4	11.4	3.3	5.2				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.3	0.0	3.6	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

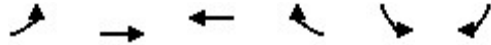
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↗	↖	↗
Traffic Volume (veh/h)	1679	2511	3305	11	0	106
Future Volume (veh/h)	1679	2511	3305	11	0	106
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1767	2643	3479	0	0	112
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1561	3031	2661		110	590
Arrive On Green	0.31	0.87	0.53	0.00	0.00	0.06
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1767	2643	3479	0	0	112
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	46.6	60.6	80.1	0.0	0.0	7.2
Cycle Q Clear(g_c), s	46.6	60.6	80.1	0.0	0.0	7.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1561	3031	2661		110	590
V/C Ratio(X)	1.13	0.87	1.31		0.00	0.19
Avail Cap(c_a), veh/h	1561	3031	2661		202	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	5.0	35.0	0.0	0.0	31.8
Incr Delay (d2), s/veh	68.2	3.8	138.6	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.8	11.1	64.3	0.0	0.0	7.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	119.9	8.8	173.6	0.0	0.0	32.0
LnGrp LOS	F	A	F		A	C
Approach Vol, veh/h		4410	3479	A	112	
Approach Delay, s/veh		53.3	173.6		32.0	
Approach LOS		D	F		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		136.4		13.6	51.0	85.4
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	46.6	* 73
Max Q Clear Time (g_c+I1), s		62.6		9.2	48.6	82.1
Green Ext Time (p_c), s		60.2		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			105.3			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	665	1129	91	73	1096	72	106	313	82	86	179	788
Future Volume (veh/h)	665	1129	91	73	1096	72	106	313	82	86	179	788
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.94	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	679	1152	93	74	1118	73	108	319	84	88	183	804
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	725	1722	139	412	1840	120	129	349	278	143	687	1074
Arrive On Green	0.21	0.52	0.52	0.31	0.72	0.72	0.07	0.19	0.19	0.08	0.19	0.19
Sat Flow, veh/h	3456	3329	268	1781	3383	221	1781	1870	1490	1781	3554	2528
Grp Volume(v), veh/h	679	614	631	74	587	604	108	319	84	88	183	804
Grp Sat Flow(s),veh/h/ln	1728	1777	1821	1781	1777	1826	1781	1870	1490	1781	1777	1264
Q Serve(g_s), s	29.0	38.3	38.4	4.6	24.4	24.5	9.0	25.1	7.3	7.2	6.6	29.0
Cycle Q Clear(g_c), s	29.0	38.3	38.4	4.6	24.4	24.5	9.0	25.1	7.3	7.2	6.6	29.0
Prop In Lane	1.00		0.15	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	725	919	942	412	966	993	129	349	278	143	687	1074
V/C Ratio(X)	0.94	0.67	0.67	0.18	0.61	0.61	0.84	0.91	0.30	0.62	0.27	0.75
Avail Cap(c_a), veh/h	751	919	942	412	966	993	138	388	309	143	687	1074
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.79	0.79	0.79	0.99	0.99	0.99	0.78	0.78	0.78
Uniform Delay (d), s/veh	58.3	26.7	26.7	41.5	12.8	12.9	68.7	59.9	52.6	66.8	51.5	41.9
Incr Delay (d2), s/veh	18.7	3.8	3.8	0.8	2.2	2.2	30.3	24.5	0.7	4.6	0.2	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	16.7	17.2	2.1	8.0	8.3	5.2	14.2	2.8	3.4	3.0	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	30.5	30.5	42.3	15.1	15.0	99.0	84.4	53.3	71.4	51.7	44.4
LnGrp LOS	E	C	C	D	B	B	F	F	D	E	D	D
Approach Vol, veh/h	1924				1265		511				1075	
Approach Delay, s/veh	46.9				16.7		82.3				47.8	
Approach LOS	D				B		F				D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.9	32.9	41.1	82.8	15.3	34.0	35.9	88.1				
Change Period (Y+Rc), s	4.4	4.9	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	31.1	31.1	12.8	* 78	11.6	29.0	32.6	57.2				
Max Q Clear Time (g_c+I), s	27.1	27.1	6.6	40.4	11.0	31.0	31.0	26.5				
Green Ext Time (p_c), s	0.0	0.9	0.0	14.6	0.0	0.0	0.5	7.8				

Intersection Summary

HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	1102	113	43	165	0	0	0	0	145	201	1083
Future Volume (veh/h)	0	1102	113	43	165	0	0	0	0	145	201	1083
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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1198	123	47	179	0				158	218	1177
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1309	134	70	1674	0				347	1279	1219
Arrive On Green	0.00	0.54	0.54	0.04	0.47	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3346	333	1781	3647	0				770	2839	2705
Grp Volume(v), veh/h	0	653	668	47	179	0				376	0	1177
Grp Sat Flow(s),veh/h/ln	0	1777	1809	1781	1777	0				1832	1777	1353
Q Serve(g_s), s	0.0	50.2	50.6	3.9	4.2	0.0				21.3	0.0	63.5
Cycle Q Clear(g_c), s	0.0	50.2	50.6	3.9	4.2	0.0				21.3	0.0	63.5
Prop In Lane	0.00		0.18	1.00		0.00				0.42		1.00
Lane Grp Cap(c), veh/h	0	715	728	70	1674	0				826	801	1219
V/C Ratio(X)	0.00	0.91	0.92	0.67	0.11	0.00				0.46	0.00	0.97
Avail Cap(c_a), veh/h	0	715	728	90	1674	0				826	801	1219
HCM Platoon Ratio	1.00	1.33	1.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.71	0.71	0.54	0.54	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.5	32.6	71.1	22.1	0.0				28.5	0.0	40.1
Incr Delay (d2), s/veh	0.0	13.9	14.1	3.3	0.1	0.0				1.8	0.0	18.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	21.9	22.4	1.8	1.8	0.0				10.0	0.0	24.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.4	46.7	74.3	22.2	0.0				30.3	0.0	58.8
LnGrp LOS	A	D	D	E	C	A				C	A	E
Approach Vol, veh/h		1321			226						1553	
Approach Delay, s/veh		46.6			33.0						51.9	
Approach LOS		D			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	0.3	67.0		73.0		77.3						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.6	* 60		67.6		70.4						
Max Q Clear Time (g_c+I), s	15.9	52.6		65.5		6.2						
Green Ext Time (p_c), s	0.0	2.1		0.9		0.4						

Intersection Summary

HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
28: India St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4111						111					
Traffic Volume (veh/h)	79	2552	0	0	0	0	0	100	235	0	0	0
Future Volume (veh/h)	79	2552	0	0	0	0	0	100	235	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00	1.00					1.00	0.91				
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	81	2631	0				0	103	242			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	106	3690	0				0	500	407			
Arrive On Green	0.19	0.19	0.00				0.00	0.28	0.28			
Sat Flow, veh/h	187	6762	0				0	1870	1445			
Grp Volume(v), veh/h	808	1904	0				0	103	242			
Grp Sat Flow(s),veh/h/ln	1861	1609	0				0	1777	1445			
Q Serve(g_s), s	26.8	24.0	0.0				0.0	2.9	9.4			
Cycle Q Clear(g_c), s	26.8	24.0	0.0				0.0	2.9	9.4			
Prop In Lane	0.10	0.00					0.00	1.00				
Lane Grp Cap(c), veh/h	1056	2739	0				0	500	407			
V/C Ratio(X)	0.76	0.70	0.00				0.00	0.21	0.59			
Avail Cap(c_a), veh/h	1056	2739	0				0	500	407			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	22.3	21.2	0.0				0.0	17.8	20.2			
Incr Delay (d2), s/veh	5.3	1.5	0.0				0.0	0.9	6.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.5	10.4	0.0				0.0	1.3	3.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	22.6	0.0				0.0	18.7	26.4			
LnGrp LOS	C	C	A				A	B	C			
Approach Vol, veh/h	2712					345						
Approach Delay, s/veh	24.1					24.1						
Approach LOS	C					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	41.8					23.2						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	36.9					18.3						
Max Q Clear Time (g_c+I1), s	28.8					11.4						
Green Ext Time (p_c), s	7.6					1.3						
Intersection Summary												
HCM 6th Ctrl Delay	24.1											
HCM 6th LOS	C											

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	2930	123	0	0	0	0	0	0	138	252	0
Future Volume (veh/h)	0	2930	123	0	0	0	0	0	0	138	252	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2990	126							141	257	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3521	147							529	1055	0
Arrive On Green	0.00	0.18	0.18							0.30	0.30	0.00
Sat Flow, veh/h	0	6638	267							1781	3647	0
Grp Volume(v), veh/h	0	2257	859							141	257	0
Grp Sat Flow(s),veh/h/ln	0	1609	1817							1781	1777	0
Q Serve(g_s), s	0.0	29.4	29.8							3.9	3.6	0.0
Cycle Q Clear(g_c), s	0.0	29.4	29.8							3.9	3.6	0.0
Prop In Lane	0.00		0.15							1.00		0.00
Lane Grp Cap(c), veh/h	0	2665	1003							529	1055	0
V/C Ratio(X)	0.00	0.85	0.86							0.27	0.24	0.00
Avail Cap(c_a), veh/h	0	2665	1003							529	1055	0
HCM Platoon Ratio	1.00	0.33	0.33							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	23.9	24.1							17.4	17.3	0.0
Incr Delay (d2), s/veh	0.0	3.6	9.3							1.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.2	16.6							1.7	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.5	33.4							18.7	17.9	0.0
LnGrp LOS	A	C	C							B	B	A
Approach Vol, veh/h		3116									398	
Approach Delay, s/veh		29.1									18.2	
Approach LOS		C									B	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		40.8	24.2									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		35.9	19.3									
Max Q Clear Time (g_c+l1), s		31.8	5.9									
Green Ext Time (p_c), s		4.0	1.7									
Intersection Summary												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 				
Traffic Volume (veh/h)	137	2509	0	0	0	0	0	89	38	0	0	0
Future Volume (veh/h)	137	2509	0	0	0	0	0	89	38	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	144	2641	0				0	94	40			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	992	2844	0				0	722	292			
Arrive On Green	0.18	0.18	0.00				0.00	0.29	0.29			
Sat Flow, veh/h	1781	5274	0				0	2564	997			
Grp Volume(v), veh/h	144	2641	0				0	66	68			
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1777	1691			
Q Serve(g_s), s	4.4	33.1	0.0				0.0	1.8	1.9			
Cycle Q Clear(g_c), s	4.4	33.1	0.0				0.0	1.8	1.9			
Prop In Lane	1.00		0.00				0.00		0.59			
Lane Grp Cap(c), veh/h	992	2844	0				0	519	494			
V/C Ratio(X)	0.15	0.93	0.00				0.00	0.13	0.14			
Avail Cap(c_a), veh/h	992	2844	0				0	519	494			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	13.6	25.3	0.0				0.0	16.9	17.0			
Incr Delay (d2), s/veh	0.3	6.8	0.0				0.0	0.5	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.7	16.4	0.0				0.0	0.8	0.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	32.1	0.0				0.0	17.4	17.5			
LnGrp LOS	B	C	A				A	B	B			
Approach Vol, veh/h	2785						134					
Approach Delay, s/veh	31.1						17.5					
Approach LOS	C						B					
Timer - Assigned Phs	2						8					
Phs Duration (G+Y+Rc), s	41.1						23.9					
Change Period (Y+Rc), s	4.9						4.9					
Max Green Setting (Gmax), s	36.2						19.0					
Max Q Clear Time (g_c+I1), s	35.1						3.9					
Green Ext Time (p_c), s	1.1						0.6					
Intersection Summary												
HCM 6th Ctrl Delay			30.5									
HCM 6th LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  		 				 	 
Traffic Volume (veh/h)	293	276	187	465	1183	0	171	46	369	0	36	184
Future Volume (veh/h)	293	276	187	465	1183	0	171	46	369	0	36	184
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	326	307	208	517	1314	0	190	51	0	0	40	204
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	352	1429	554	1401	3175	0	258	140		0	111	154
Arrive On Green	0.20	0.29	0.29	0.41	0.51	0.00	0.07	0.07	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1519	3456	6537	0	3456	1870	1585	0	1870	2606
Grp Volume(v), veh/h	326	307	208	517	1314	0	190	51	0	0	40	204
Grp Sat Flow(s),veh/h/ln	1781	1662	1519	1728	1570	0	1728	1870	1585	0	1870	1303
Q Serve(g_s), s	21.6	5.6	12.2	12.6	15.7	0.0	6.5	3.1	0.0	0.0	2.5	7.1
Cycle Q Clear(g_c), s	21.6	5.6	12.2	12.6	15.7	0.0	6.5	3.1	0.0	0.0	2.5	7.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	352	1429	554	1401	3175	0	258	140		0	111	154
V/C Ratio(X)	0.93	0.21	0.38	0.37	0.41	0.00	0.74	0.37		0.00	0.36	1.32
Avail Cap(c_a), veh/h	380	1429	554	1401	3175	0	1066	577		0	111	154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.91	0.91	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	32.5	28.4	24.9	18.6	0.0	54.4	52.8	0.0	0.0	54.3	56.5
Incr Delay (d2), s/veh	26.6	0.3	1.9	0.0	0.0	0.0	1.4	0.5	0.0	0.0	2.0	183.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	2.2	5.2	4.9	5.4	0.0	2.8	1.5	0.0	0.0	1.2	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	32.9	30.3	25.0	18.6	0.0	55.8	53.4	0.0	0.0	56.2	239.8
LnGrp LOS	E	C	C	C	B	A	E	D		A	E	F
Approach Vol, veh/h		841			1831			241	A		244	
Approach Delay, s/veh		48.1			20.4			55.3			209.7	
Approach LOS		D			C			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	54.0	40.1		12.0	28.1	66.1		13.9				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	21.6	* 34		7.1	25.6	30.7		37.0				
Max Q Clear Time (g_c+I1), s	14.6	14.2		9.1	23.6	17.7		8.5				
Green Ext Time (p_c), s	0.7	4.8		0.0	0.1	10.6		0.5				

Intersection Summary

HCM 6th Ctrl Delay 45.1

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
41: Kettner Blvd & Palm St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet
Timing Plan: Airport PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	764	0	0	1255	1170
Future Volume (veh/h)	0	764	0	0	1255	1170
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	813			1335	1245
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2979	1383
Arrive On Green	0.00	0.00			0.88	0.88
Sat Flow, veh/h	0				3572	1581
Grp Volume(v), veh/h	0.0				1335	1245
Grp Sat Flow(s),veh/h/ln					1702	1581
Q Serve(g_s), s					2.9	16.7
Cycle Q Clear(g_c), s					2.9	16.7
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2979	1383
V/C Ratio(X)					0.45	0.90
Avail Cap(c_a), veh/h					3067	1424
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	1.3
Incr Delay (d2), s/veh					0.1	8.0
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.0	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.6	9.3
LnGrp LOS					A	A
Approach Vol, veh/h					2580	
Approach Delay, s/veh					4.8	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					36.1	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					32.5	
Max Q Clear Time (g_c+I1), s					18.7	
Green Ext Time (p_c), s					12.9	
Intersection Summary						
HCM 6th Ctrl Delay			4.8			
HCM 6th LOS			A			
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												
Traffic Volume (veh/h)	137	249	79	308	409	150	138	503	73	261	1147	86
Future Volume (veh/h)	137	249	79	308	409	150	138	503	73	261	1147	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	265	84	328	435	160	147	535	78	278	1220	91
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	408	181	607	466	172	130	712	315	293	1414	105
Arrive On Green	0.10	0.11	0.11	0.34	0.36	0.36	0.07	0.20	0.20	0.16	0.29	0.29
Sat Flow, veh/h	1781	3554	1577	1781	1304	479	1781	3554	1576	1781	4845	361
Grp Volume(v), veh/h	146	265	84	328	0	595	147	535	78	278	857	454
Grp Sat Flow(s),veh/h/ln	1781	1777	1577	1781	0	1783	1781	1777	1576	1781	1702	1802
Q Serve(g_s), s	8.5	7.5	4.3	15.7	0.0	34.0	7.7	15.0	2.0	16.4	25.2	25.2
Cycle Q Clear(g_c), s	8.5	7.5	4.3	15.7	0.0	34.0	7.7	15.0	2.0	16.4	25.2	25.2
Prop In Lane	1.00		1.00	1.00		0.27	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	175	408	181	607	0	638	130	712	315	293	994	526
V/C Ratio(X)	0.84	0.65	0.46	0.54	0.00	0.93	1.13	0.75	0.25	0.95	0.86	0.86
Avail Cap(c_a), veh/h	178	1108	492	607	0	691	130	739	328	293	1020	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	44.8	29.3	28.2	0.0	32.8	49.1	39.8	7.5	43.8	35.5	35.5
Incr Delay (d2), s/veh	25.9	0.7	0.7	0.5	0.0	18.9	119.7	4.9	0.8	38.7	8.1	14.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	3.4	2.1	6.8	0.0	17.8	7.7	6.9	1.7	10.2	11.3	12.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	45.5	30.0	28.7	0.0	51.6	168.7	44.8	8.3	82.5	43.6	49.6
LnGrp LOS	E	D	C	C	A	D	F	D	A	F	D	D
Approach Vol, veh/h	495			923			760			1589		
Approach Delay, s/veh	50.9			43.5			65.0			52.1		
Approach LOS	D			D			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.8	26.5	40.5	17.1	12.1	36.2	14.8	42.8				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	7.4	22.0	18.6	33.0	7.7	31.7	10.6	41.0				
Max Q Clear Time (g_c+T1), s	11.4	17.0	17.7	9.5	9.7	27.2	10.5	36.0				
Green Ext Time (p_c), s	0.0	2.3	0.1	1.3	0.0	3.7	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay 52.4

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



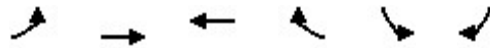
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	62	52	286	4	14	26	599	609	267	1417	18
Future Volume (veh/h)	36	62	52	286	4	14	26	599	609	267	1417	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	42	72	60	333	5	16	30	697	708	310	1648	21
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	144	120	372	67	213	42	829	696	343	2090	27
Arrive On Green	0.19	0.15	0.15	0.21	0.17	0.17	0.02	0.23	0.23	0.19	0.40	0.40
Sat Flow, veh/h	1781	936	780	1781	387	1239	1781	3554	1567	1781	5195	66
Grp Volume(v), veh/h	42	0	132	333	0	21	30	697	708	310	1080	589
Grp Sat Flow(s),veh/h/ln	1781	0	1715	1781	0	1627	1781	1777	1567	1781	1702	1858
Q Serve(g_s), s	1.8	0.0	6.4	16.4	0.0	1.0	1.5	16.8	21.0	15.3	25.0	25.0
Cycle Q Clear(g_c), s	1.8	0.0	6.4	16.4	0.0	1.0	1.5	16.8	21.0	15.3	25.0	25.0
Prop In Lane	1.00		0.45	1.00		0.76	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	333	0	263	372	0	280	42	829	696	343	1369	747
V/C Ratio(X)	0.13	0.00	0.50	0.90	0.00	0.07	0.72	0.84	1.02	0.90	0.79	0.79
Avail Cap(c_a), veh/h	333	0	591	445	0	816	79	829	696	348	1369	747
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	35.0	34.7	0.0	31.3	43.7	32.9	25.2	35.5	23.6	23.6
Incr Delay (d2), s/veh	0.2	0.0	0.6	18.1	0.0	0.0	8.3	8.3	38.4	25.0	3.2	5.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	2.7	8.9	0.0	0.4	0.7	7.9	21.5	8.8	10.0	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	0.0	35.5	52.8	0.0	31.3	52.0	41.2	63.5	60.6	26.7	29.2
LnGrp LOS	C	A	D	D	A	C	D	D	F	E	C	C
Approach Vol, veh/h	174			354			1435			1979		
Approach Delay, s/veh	34.3			51.5			52.5			32.8		
Approach LOS	C			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.7	26.7	23.3	18.3	6.5	41.9	21.3	20.3				
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.5	4.4	5.7	* 4.5	4.8				
Max Green Setting (Gmax), s	7.6	* 21	22.5	* 31	4.0	33.9	* 7.5	45.2				
Max Q Clear Time (g_c+I1), s	11.3	23.0	18.4	8.4	3.5	27.0	3.8	3.0				
Green Ext Time (p_c), s	0.0	0.0	0.4	0.5	0.0	5.2	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↗	↖	↗
Traffic Volume (veh/h)	2075	3282	3144	31	0	74
Future Volume (veh/h)	2075	3282	3144	31	0	74
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	2161	3419	3275	0	0	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1795	3096	2521		76	634
Arrive On Green	0.36	0.89	0.51	0.00	0.00	0.04
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	2161	3419	3275	0	0	77
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	53.6	133.9	75.9	0.0	0.0	4.6
Cycle Q Clear(g_c), s	53.6	133.9	75.9	0.0	0.0	4.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1795	3096	2521		76	634
V/C Ratio(X)	1.20	1.10	1.30		0.00	0.12
Avail Cap(c_a), veh/h	1795	3096	2521		202	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	0.00	1.00
Uniform Delay (d), s/veh	48.2	8.1	37.1	0.0	0.0	28.4
Incr Delay (d2), s/veh	97.3	52.4	134.8	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.8	36.1	60.4	0.0	0.0	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	145.5	60.5	171.9	0.0	0.0	28.4
LnGrp LOS	F	F	F		A	C
Approach Vol, veh/h		5580	3275	A	77	
Approach Delay, s/veh		93.4	171.9		28.4	
Approach LOS		F	F		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		139.2		10.8	58.0	81.2
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	53.6	* 66
Max Q Clear Time (g_c+I1), s		135.9		6.6	55.6	77.9
Green Ext Time (p_c), s		0.0		0.1	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			121.7			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑↔		↔	↑↑↔		↔	↑	↔	↔	↑↑	↔↔
Traffic Volume (veh/h)	646	1636	113	166	875	0	116	355	159	220	878	800
Future Volume (veh/h)	646	1636	113	166	875	0	116	355	159	220	878	800
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	751	1902	131	193	1017	0	135	413	185	256	1021	930
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1335	2218	151	138	1206	0	114	375	316	197	891	1770
Arrive On Green	0.39	0.66	0.66	0.10	0.45	0.00	0.06	0.20	0.20	0.11	0.25	0.25
Sat Flow, veh/h	3456	3373	229	1781	3647	0	1781	1870	1573	1781	3554	2762
Grp Volume(v), veh/h	751	990	1043	193	1017	0	135	413	185	256	1021	930
Grp Sat Flow(s),veh/h/ln	1728	1777	1825	1781	1777	0	1781	1870	1573	1781	1777	1381
Q Serve(g_s), s	25.6	64.7	68.4	11.6	38.0	0.0	9.6	30.1	16.7	16.6	37.6	7.1
Cycle Q Clear(g_c), s	25.6	64.7	68.4	11.6	38.0	0.0	9.6	30.1	16.7	16.6	37.6	7.1
Prop In Lane	1.00		0.13	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1335	1168	1200	138	1206	0	114	375	316	197	891	1770
V/C Ratio(X)	0.56	0.85	0.87	1.40	0.84	0.00	1.18	1.10	0.59	1.30	1.15	0.53
Avail Cap(c_a), veh/h	1335	1168	1200	138	1206	0	114	375	316	197	891	1770
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.00	0.98	0.98	0.98	0.49	0.49	0.49
Uniform Delay (d), s/veh	36.1	19.9	20.5	67.3	37.6	0.0	70.2	60.0	59.4	66.7	56.2	17.1
Incr Delay (d2), s/veh	0.5	7.7	8.6	209.6	5.5	0.0	141.3	75.9	2.9	151.6	72.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	27.0	29.5	13.1	16.0	0.0	8.8	22.1	6.9	15.8	25.7	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	27.6	29.2	276.9	43.1	0.0	211.5	135.8	62.3	218.3	129.0	17.3
LnGrp LOS	D	C	C	F	D	A	F	F	E	F	F	B
Approach Vol, veh/h	2784			1210			733			2207		
Approach Delay, s/veh	30.6			80.4			131.2			92.3		
Approach LOS	C			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.6	35.0	16.0	104.4	14.0	42.6	63.7	56.7				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	5.2	4.4	5.0	5.2	* 5.8				
Max Green Setting (Gmax), s	16.6	* 30	11.6	72.8	9.6	37.0	32.9	* 51				
Max Q Clear Time (g_c+11g), s	119.6	32.1	13.6	70.4	11.6	39.6	27.6	40.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	2.3	0.0	0.0	1.5	4.6				

Intersection Summary

HCM 6th Ctrl Delay	69.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑						↑↑	↗
Traffic Volume (veh/h)	0	1760	189	44	197	0	0	0	0	296	789	974
Future Volume (veh/h)	0	1760	189	44	197	0	0	0	0	296	789	974
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1872	201	47	210	0				315	839	1036
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2880	304	55	3369	0				332	955	982
Arrive On Green	0.00	1.00	1.00	0.03	0.95	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	3337	342	1781	3647	0				928	2673	2747
Grp Volume(v), veh/h	0	1010	1063	47	210	0				619	535	1036
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1824	1777	1373
Q Serve(g_s), s	0.0	0.0	0.0	3.9	0.5	0.0				49.5	41.5	53.6
Cycle Q Clear(g_c), s	0.0	0.0	0.0	3.9	0.5	0.0				49.5	41.5	53.6
Prop In Lane	0.00		0.19	1.00		0.00				0.51		1.00
Lane Grp Cap(c), veh/h	0	1578	1606	55	3369	0				652	635	982
V/C Ratio(X)	0.00	0.64	0.66	0.86	0.06	0.00				0.95	0.84	1.06
Avail Cap(c_a), veh/h	0	1578	1606	55	3369	0				652	635	982
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.48	0.48	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	72.4	0.2	0.0				46.9	44.3	48.2
Incr Delay (d2), s/veh	0.0	0.2	0.2	43.0	0.0	0.0				24.8	12.9	44.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	2.4	0.0	0.0				27.1	20.7	24.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.2	0.2	115.4	0.2	0.0				71.7	57.2	92.7
LnGrp LOS	A	A	A	F	A	A				E	E	F
Approach Vol, veh/h		2073			257						2190	
Approach Delay, s/veh		0.2			21.3						78.1	
Approach LOS		A			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	141.5			59.0		150.5						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	11.6	* 77		53.6		84.4						
Max Q Clear Time (g_c+1.5), s	11.6	2.0		55.6		2.5						
Green Ext Time (p_c), s	0.0	6.5		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
28: India St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4111						22				
Traffic Volume (veh/h)	84	3252	0	0	0	0	0	193	278	0	0	0
Future Volume (veh/h)	84	3252	0	0	0	0	0	193	278	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	92	3574	0				0	212	305			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	103	4289	0				0	417	349			
Arrive On Green	0.22	0.22	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	157	6793	0				0	1870	1488			
Grp Volume(v), veh/h	1094	2572	0				0	212	305			
Grp Sat Flow(s),veh/h/ln	1863	1609	0				0	1777	1488			
Q Serve(g_s), s	51.4	45.6	0.0				0.0	9.3	17.8			
Cycle Q Clear(g_c), s	51.4	45.6	0.0				0.0	9.3	17.8			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1223	3169	0				0	417	349			
V/C Ratio(X)	0.89	0.81	0.00				0.00	0.51	0.87			
Avail Cap(c_a), veh/h	1223	3169	0				0	417	349			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	32.2	30.0	0.0				0.0	29.9	33.2			
Incr Delay (d2), s/veh	10.3	2.4	0.0				0.0	4.4	24.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	28.9	20.1	0.0				0.0	4.5	8.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	32.3	0.0				0.0	34.3	58.1			
LnGrp LOS	D	C	A				A	C	E			
Approach Vol, veh/h		3666						517				
Approach Delay, s/veh		35.4						48.4				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		64.0						26.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		59.1						21.1				
Max Q Clear Time (g_c+I1), s		53.4						19.8				
Green Ext Time (p_c), s		5.7						0.5				
Intersection Summary												
HCM 6th Ctrl Delay			37.0									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	3864	112	0	0	0	0	0	0	325	447	0
Future Volume (veh/h)	0	3864	112	0	0	0	0	0	0	325	447	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	4200	122							353	486	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	4367	125							386	770	0
Arrive On Green	0.00	0.22	0.22							0.07	0.07	0.00
Sat Flow, veh/h	0	6736	185							1781	3647	0
Grp Volume(v), veh/h	0	3115	1207							353	486	0
Grp Sat Flow(s),veh/h/ln	0	1609	1834							1781	1777	0
Q Serve(g_s), s	0.0	57.4	58.8							17.7	12.0	0.0
Cycle Q Clear(g_c), s	0.0	57.4	58.8							17.7	12.0	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	3255	1237							386	770	0
V/C Ratio(X)	0.00	0.96	0.98							0.91	0.63	0.00
Avail Cap(c_a), veh/h	0	3255	1237							386	770	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.7	34.3							41.0	38.3	0.0
Incr Delay (d2), s/veh	0.0	8.5	20.4							28.6	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	27.0	35.6							11.5	6.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.2	54.7							69.6	42.2	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		4322									839	
Approach Delay, s/veh		45.7									53.7	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		65.6	24.4									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		60.7	19.5									
Max Q Clear Time (g_c+l1), s		60.8	19.7									
Green Ext Time (p_c), s		0.0	0.0									
Intersection Summary												
HCM 6th Ctrl Delay			47.0									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2035 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑						↑↑				
Traffic Volume (veh/h)	173	3466	0	0	0	0	0	176	45	0	0	0
Future Volume (veh/h)	173	3466	0	0	0	0	0	176	45	0	0	0
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			
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	204	4078	0				0	207	53			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	1439	4126	0				0	357	89			
Arrive On Green	0.81	0.81	0.00				0.00	0.13	0.13			
Sat Flow, veh/h	1781	5274	0				0	2909	704			
Grp Volume(v), veh/h	204	4078	0				0	129	131			
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1777	1744			
Q Serve(g_s), s	3.7	114.2	0.0				0.0	10.2	10.7			
Cycle Q Clear(g_c), s	3.7	114.2	0.0				0.0	10.2	10.7			
Prop In Lane	1.00		0.00				0.00		0.40			
Lane Grp Cap(c), veh/h	1439	4126	0				0	225	221			
V/C Ratio(X)	0.14	0.99	0.00				0.00	0.57	0.59			
Avail Cap(c_a), veh/h	1439	4126	0				0	225	221			
HCM Platoon Ratio	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			
Uniform Delay (d), s/veh	3.1	13.7	0.0				0.0	61.7	61.9			
Incr Delay (d2), s/veh	0.2	11.6	0.0				0.0	10.2	11.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.3	39.1	0.0				0.0	5.3	5.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.3	25.3	0.0				0.0	71.8	73.1			
LnGrp LOS	A	C	A				A	E	E			
Approach Vol, veh/h	4282								260			
Approach Delay, s/veh	24.3								72.5			
Approach LOS	C								E			
Timer - Assigned Phs	2								8			
Phs Duration (G+Y+Rc), s	126.1								23.9			
Change Period (Y+Rc), s	4.9								4.9			
Max Green Setting (Gmax), s	121.2								19.0			
Max Q Clear Time (g_c+l1), s	116.2								12.7			
Green Ext Time (p_c), s	5.0								0.8			
Intersection Summary												
HCM 6th Ctrl Delay			27.0									
HCM 6th LOS			C									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  		 				 	 
Traffic Volume (veh/h)	226	1053	309	770	1101	0	280	37	706	0	30	166
Future Volume (veh/h)	226	1053	309	770	1101	0	280	37	706	0	30	166
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	243	1132	332	828	1184	0	301	40	0	0	32	178
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	267	1577	667	1313	3490	0	361	195		0	94	124
Arrive On Green	0.15	0.32	0.32	0.38	0.56	0.00	0.10	0.10	0.00	0.00	0.05	0.05
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2488
Grp Volume(v), veh/h	243	1132	332	828	1184	0	301	40	0	0	32	178
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1244
Q Serve(g_s), s	18.8	28.1	21.5	27.4	14.5	0.0	12.0	2.7	0.0	0.0	2.3	7.0
Cycle Q Clear(g_c), s	18.8	28.1	21.5	27.4	14.5	0.0	12.0	2.7	0.0	0.0	2.3	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	267	1577	667	1313	3490	0	361	195		0	94	124
V/C Ratio(X)	0.91	0.72	0.50	0.63	0.34	0.00	0.83	0.20		0.00	0.34	1.43
Avail Cap(c_a), veh/h	358	1577	667	1313	3490	0	913	494		0	94	124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.62	0.62	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	58.6	42.3	29.7	35.4	17.0	0.0	61.5	57.4	0.0	0.0	64.3	66.5
Incr Delay (d2), s/veh	19.0	2.8	2.6	0.1	0.0	0.0	1.2	0.1	0.0	0.0	2.1	233.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	11.7	10.1	11.2	5.0	0.0	5.3	1.3	0.0	0.0	1.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.6	45.2	32.4	35.5	17.1	0.0	62.7	57.5	0.0	0.0	66.4	300.1
LnGrp LOS	E	D	C	D	B	A	E	E		A	E	F
Approach Vol, veh/h		1707			2012			341	A		210	
Approach Delay, s/veh		47.3			24.6			62.1			264.5	
Approach LOS		D			C			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	58.6	50.0		11.9	25.4	83.2		19.5				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	31.8	* 44		7.0	28.1	48.3		37.0				
Max Q Clear Time (g_c+l1), s	29.4	30.1		9.0	20.8	16.5		14.0				
Green Ext Time (p_c), s	0.6	10.7		0.0	0.2	20.0		0.7				

Intersection Summary

HCM 6th Ctrl Delay 48.5

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	916	0	0	2372	772
Future Volume (veh/h)	0	916	0	0	2372	772
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	974			2523	821
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3613	1062
Arrive On Green	0.00	0.00			0.92	0.92
Sat Flow, veh/h	0				4084	1151
Grp Volume(v), veh/h	0.0				2158	1186
Grp Sat Flow(s),veh/h/ln					1702	1663
Q Serve(g_s), s					7.8	11.2
Cycle Q Clear(g_c), s					7.8	11.2
Prop In Lane						0.69
Lane Grp Cap(c), veh/h					3141	1534
V/C Ratio(X)					0.69	0.77
Avail Cap(c_a), veh/h					3289	1607
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	0.6
Incr Delay (d2), s/veh					0.6	2.3
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					1.1	2.9
LnGrp LOS					A	A
Approach Vol, veh/h					3344	
Approach Delay, s/veh					1.7	
Approach LOS					A	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					58.2	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					56.2	
Max Q Clear Time (g_c+I1), s					13.2	
Green Ext Time (p_c), s					40.5	
Intersection Summary						
HCM 6th Ctrl Delay			1.7			
HCM 6th LOS			A			

Notes

User approved volume balancing among the lanes for turning movement.

2050 Conditions

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	448	148	442	408	149	170	223	373	169	180	112
Future Volume (veh/h)	56	448	148	442	408	149	170	223	373	169	180	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.92	1.00		0.97	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	477	157	470	434	159	181	237	397	180	191	119
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	1019	586	506	729	569	198	925	633	206	940	409
Arrive On Green	0.04	0.29	0.29	0.15	0.39	0.39	0.11	0.26	0.26	0.12	0.26	0.26
Sat Flow, veh/h	1781	3554	1431	3456	1870	1461	1781	3554	1541	1781	3554	1546
Grp Volume(v), veh/h	60	477	157	470	434	159	181	237	397	180	191	119
Grp Sat Flow(s),veh/h/ln	1781	1777	1431	1728	1870	1461	1781	1777	1541	1781	1777	1546
Q Serve(g_s), s	4.1	13.5	9.1	16.4	22.6	9.1	12.3	6.5	25.2	12.2	5.1	7.5
Cycle Q Clear(g_c), s	4.1	13.5	9.1	16.4	22.6	9.1	12.3	6.5	25.2	12.2	5.1	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	1019	586	506	729	569	198	925	633	206	940	409
V/C Ratio(X)	0.78	0.47	0.27	0.93	0.60	0.28	0.91	0.26	0.63	0.87	0.20	0.29
Avail Cap(c_a), veh/h	146	1078	610	506	729	569	198	1086	703	207	1104	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	57.9	35.9	24.9	51.6	29.7	25.6	53.8	35.9	29.0	53.2	35.0	35.8
Incr Delay (d2), s/veh	6.1	0.4	0.3	23.5	1.0	0.1	40.0	0.1	1.5	30.3	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.9	3.1	8.8	10.3	3.2	7.7	2.8	9.5	7.2	2.2	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	36.4	25.2	75.1	30.7	25.7	93.8	36.0	30.5	83.5	35.0	36.0
LnGrp LOS	E	D	C	E	C	C	F	D	C	F	D	D
Approach Vol, veh/h	694			1063			815			490		
Approach Delay, s/veh	36.2			49.6			46.2			53.1		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.3	41.0	19.0	39.1	10.7	53.6	19.5	38.5				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	17.9	37.1	13.6	38.0	10.0	45.0	14.2	37.4				
Max Q Clear Time (g_c+I1), s	18.4	15.5	14.3	9.5	6.1	24.6	14.2	27.2				
Green Ext Time (p_c), s	0.0	4.6	0.0	1.0	0.0	2.3	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay	46.2											
HCM 6th LOS	D											

2: Pacific Hwy & Dwy/Old Town Transit Center Bus Access

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	↔
Traffic Volume (veh/h)	32	0	2	6	0	69	5	578	6	90	386	162
Future Volume (veh/h)	32	0	2	6	0	69	5	578	6	90	386	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	0	2	7	0	75	5	628	7	98	420	176
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	434	6	13	480	0	404	10	1612	18	126	1336	529
Arrive On Green	0.19	0.00	0.19	0.19	0.00	0.19	0.01	0.31	0.31	0.07	0.38	0.38
Sat Flow, veh/h	1217	31	71	1428	0	1550	1781	5204	58	1781	3559	1410
Grp Volume(v), veh/h	37	0	0	7	0	75	5	411	224	98	401	195
Grp Sat Flow(s), veh/h/ln	1319	0	0	1428	0	1550	1781	1702	1858	1781	1702	1565
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	1.3	0.1	3.2	3.2	1.8	2.8	3.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.1	0.0	1.3	0.1	3.2	3.2	1.8	2.8	3.0
Prop In Lane	0.95		0.05	1.00		1.00	1.00		0.03	1.00		0.90
Lane Grp Cap(c), veh/h	454	0	0	480	0	404	10	1055	576	126	1278	588
V/C Ratio(X)	0.08	0.00	0.00	0.01	0.00	0.19	0.52	0.39	0.39	0.78	0.31	0.33
Avail Cap(c_a), veh/h	1437	0	0	1520	0	1567	209	2077	1133	397	2426	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(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	0.0	0.0	11.3	0.0	9.8	16.9	9.2	9.2	15.6	7.5	7.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	15.0	0.3	0.6	3.8	0.2	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.0	0.0	0.0	0.0	0.3	0.1	0.9	1.0	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.6	0.0	0.0	11.3	0.0	9.9	31.9	9.5	9.8	19.4	7.7	8.0
LnGrp LOS	B	A	A	B	A	A	C	A	A	B	A	A
Approach Vol, veh/h		37			82			640			694	
Approach Delay, s/veh		11.6			10.0			9.8			9.4	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	16.0		11.3	4.6	18.2		11.3				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	7.6	* 21		32.0	4.0	24.3		32.0				
Max Q Clear Time (g_c+I), s	13.8	5.2		2.8	2.1	5.0		3.3				
Green Ext Time (p_c), s	0.0	4.6		0.1	0.0	4.4		0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	10	123	147	39	6	1229	737	265	13	737	68
Future Volume (veh/h)	8	10	123	147	39	6	1229	737	265	13	737	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.70	1.00		0.76	1.00		0.94	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	11	132	158	42	6	1322	792	285	14	792	73
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	375	221	181	514	333	534	1865	783	21	794	73
Arrive On Green	0.03	0.20	0.20	0.10	0.27	0.27	0.30	0.52	0.52	0.01	0.24	0.24
Sat Flow, veh/h	1781	1870	1102	1781	1870	1211	1781	3554	1492	1781	3254	300
Grp Volume(v), veh/h	9	11	132	158	42	6	1322	792	285	14	432	433
Grp Sat Flow(s),veh/h/ln	1781	1870	1102	1781	1870	1211	1781	1777	1492	1781	1777	1777
Q Serve(g_s), s	0.7	0.7	15.8	12.7	2.4	0.5	43.6	19.8	16.3	1.1	35.4	35.4
Cycle Q Clear(g_c), s	0.7	0.7	15.8	12.7	2.4	0.5	43.6	19.8	16.3	1.1	35.4	35.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	49	375	221	181	514	333	534	1865	783	21	434	433
V/C Ratio(X)	0.18	0.03	0.60	0.87	0.08	0.02	2.48	0.42	0.36	0.66	1.00	1.00
Avail Cap(c_a), veh/h	55	375	221	266	514	333	534	1865	783	66	434	433
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.2	46.8	52.8	64.4	39.1	38.4	50.9	21.1	20.3	71.6	55.0	55.0
Incr Delay (d2), s/veh	0.7	0.0	3.1	13.8	0.0	0.0	670.1	0.2	0.4	12.3	42.5	42.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	4.6	6.5	1.1	0.2	118.7	8.4	5.8	0.6	20.9	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	46.8	55.9	78.2	39.2	38.4	721.0	21.3	20.6	83.9	97.5	97.7
LnGrp LOS	E	D	E	E	D	D	F	C	C	F	F	F
Approach Vol, veh/h	152			206			2399			879		
Approach Delay, s/veh	56.0			69.1			406.8			97.4		
Approach LOS	E			E			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	85.1	19.2	34.1	48.0	44.2	8.4	44.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	5.4	71.7	21.7	22.8	43.6	* 36	4.5	40.0				
Max Q Clear Time (g_c+I), s	13.1	21.8	14.7	17.8	45.6	37.4	2.7	4.4				
Green Ext Time (p_c), s	0.0	10.9	0.1	0.2	0.0	0.0	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 298.2

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	318	80	171	205	0	0	0	0	141	47	107
Future Volume (veh/h)	0	318	80	171	205	0	0	0	0	141	47	107
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	349	88	188	225	0				104	124	118
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	311	621	274	292	559	0				484	508	700
Arrive On Green	0.00	0.17	0.17	0.16	0.16	0.00				0.27	0.27	0.27
Sat Flow, veh/h	1781	3554	1567	1781	3572	0				1781	1870	1557
Grp Volume(v), veh/h	0	349	88	188	225	0				104	124	118
Grp Sat Flow(s), veh/h/ln	1781	1777	1567	1781	1702	0				1781	1870	1557
Q Serve(g_s), s	0.0	3.3	1.8	3.7	2.2	0.0				1.7	1.9	1.7
Cycle Q Clear(g_c), s	0.0	3.3	1.8	3.7	2.2	0.0				1.7	1.9	1.7
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	311	621	274	292	559	0				484	508	700
V/C Ratio(X)	0.00	0.56	0.32	0.64	0.40	0.00				0.21	0.24	0.17
Avail Cap(c_a), veh/h	670	1336	589	354	676	0				1392	1461	1493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.1	13.4	14.5	13.9	0.0				10.5	10.6	6.2
Incr Delay (d2), s/veh	0.0	0.3	0.2	3.2	0.5	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				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	1.0	0.5	1.3	0.7	0.0				0.5	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.4	13.7	17.7	14.5	0.0				10.6	10.7	6.2
LnGrp LOS	A	B	B	B	B	A				B	B	A
Approach Vol, veh/h	437			413			346					
Approach Delay, s/veh	14.2			15.9			9.1					
Approach LOS	B			B			A					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	10.5			16.3			10.4					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	14.0			29.1			7.4					
Max Q Clear Time (g_c+I1), s	5.3			3.9			5.7					
Green Ext Time (p_c), s	1.0			0.8			0.4					

Intersection Summary

HCM 6th Ctrl Delay 13.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	454	0	0	575	166	126	9	184	4	0	351
Future Volume (veh/h)	288	454	0	0	575	166	126	9	184	4	0	351
Initial Q (Qb), 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		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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	320	504	0	0	639	184	140	10	204	4	0	390
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	359	2032	0	0	850	245	315	13	263	1	0	98
Arrive On Green	0.20	0.57	0.00	0.00	0.31	0.31	0.18	0.18	0.18	0.06	0.00	0.06
Sat Flow, veh/h	1781	3647	0	0	2810	781	1781	73	1490	16	0	1534
Grp Volume(v), veh/h	320	504	0	0	418	405	140	0	214	394	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1721	1781	0	1563	1550	0	0
Q Serve(g_s), s	13.8	5.6	0.0	0.0	16.6	16.6	5.5	0.0	10.3	5.0	0.0	0.0
Cycle Q Clear(g_c), s	13.8	5.6	0.0	0.0	16.6	16.6	5.5	0.0	10.3	5.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.45	1.00		0.95	0.01		0.99
Lane Grp Cap(c), veh/h	359	2032	0	0	556	539	315	0	276	99	0	0
V/C Ratio(X)	0.89	0.25	0.00	0.00	0.75	0.75	0.45	0.00	0.78	4.00	0.00	0.00
Avail Cap(c_a), veh/h	374	2467	0	0	750	726	589	0	517	99	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.6	8.4	0.0	0.0	24.3	24.3	28.9	0.0	30.9	36.8	0.0	0.0
Incr Delay (d2), s/veh	22.3	0.0	0.0	0.0	3.3	3.4	0.4	0.0	1.8	1373.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	1.7	0.0	0.0	6.7	6.6	2.3	0.0	3.9	39.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.9	8.4	0.0	0.0	27.5	27.7	29.3	0.0	32.7	1410.7	0.0	0.0
LnGrp LOS	D	A	A	A	C	C	C	A	C	F	A	A
Approach Vol, veh/h	824				823		354				394	
Approach Delay, s/veh	25.7				27.6		31.3				1410.7	
Approach LOS	C				C		C				F	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	49.4		9.0		20.3	29.0	20.3					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 55		5.0		16.5	33.2	26.0					
Max Q Clear Time (g_c+I1), s	7.6		7.0		15.8	18.6	12.3					
Green Ext Time (p_c), s	2.0		0.0		0.1	4.9	0.9					

Intersection Summary

HCM 6th Ctrl Delay 255.0

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	438	189	332	450	0	0	0	0	570	499	356
Future Volume (veh/h)	0	438	189	332	450	0	0	0	0	570	499	356
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	447	193	339	459	0				608	473	363
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1465	650	420	2083	0				1059	556	462
Arrive On Green	0.00	0.41	0.41	0.04	0.19	0.00				0.30	0.30	0.30
Sat Flow, veh/h	0	3647	1577	3456	3647	0				3563	1870	1554
Grp Volume(v), veh/h	0	447	193	339	459	0				608	473	363
Grp Sat Flow(s),veh/h/ln	0	1777	1577	1728	1777	0				1781	1870	1554
Q Serve(g_s), s	0.0	7.1	6.9	8.2	9.1	0.0				12.1	20.0	18.0
Cycle Q Clear(g_c), s	0.0	7.1	6.9	8.2	9.1	0.0				12.1	20.0	18.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1465	650	420	2083	0				1059	556	462
V/C Ratio(X)	0.00	0.31	0.30	0.81	0.22	0.00				0.57	0.85	0.79
Avail Cap(c_a), veh/h	0	1465	650	436	2083	0				1277	670	557
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.98	0.98	0.94	0.94	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.6	16.5	39.3	17.7	0.0				25.0	27.8	27.1
Incr Delay (d2), s/veh	0.0	0.5	1.1	9.0	0.2	0.0				0.2	7.6	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	2.4	4.0	3.7	0.0				5.0	9.7	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.1	17.7	48.4	17.9	0.0				25.2	35.4	32.0
LnGrp LOS	A	B	B	D	B	A				C	D	C
Approach Vol, veh/h		640			798						1444	
Approach Delay, s/veh		17.3			30.9						30.2	
Approach LOS		B			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	4.6	39.5		29.9		54.1						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	10.6	29.1		30.1		44.1						
Max Q Clear Time (g_c+T10, s)	11.0	9.1		22.0		11.1						
Green Ext Time (p_c), s	0.0	3.9		2.9		3.3						

Intersection Summary

HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	155	843	0	0	719	1500	113	399	238	0	0	0
Future Volume (veh/h)	155	843	0	0	719	1500	113	399	238	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	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			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	157	852	0	0	726	1515	114	403	240			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	570	2405	0	0	1612	706	154	576	320			
Arrive On Green	0.33	1.00	0.00	0.00	0.45	0.45	0.21	0.21	0.21			
Sat Flow, veh/h	3456	3647	0	0	3647	1556	744	2791	1550			
Grp Volume(v), veh/h	157	852	0	0	726	1515	281	236	240			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1556	1833	1702	1550			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	11.8	38.1	12.1	10.7	12.2			
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.0	11.8	38.1	12.1	10.7	12.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.41		1.00			
Lane Grp Cap(c), veh/h	570	2405	0	0	1612	706	379	351	320			
V/C Ratio(X)	0.28	0.35	0.00	0.00	0.45	2.15	0.74	0.67	0.75			
Avail Cap(c_a), veh/h	570	2405	0	0	1612	706	567	527	480			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	24.4	0.0	0.0	0.0	15.8	23.0	31.2	30.7	31.3			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	0.9	520.5	1.1	0.8	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	0.1	0.0	0.0	4.4	113.9	5.3	4.4	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.4	0.0	0.0	16.7	543.5	32.3	31.5	32.6			
LnGrp LOS	C	A	A	A	B	F	C	C	C			
Approach Vol, veh/h	1009			2241			757					
Approach Delay, s/veh	4.1			372.8			32.2					
Approach LOS	A			F			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	61.8			18.8			43.0			22.2		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	48.2			5.7			* 38			26.0		
Max Q Clear Time (g_c+I1), s	2.0			4.8			40.1			14.2		
Green Ext Time (p_c), s	7.9			0.0			0.0			2.6		

Intersection Summary

HCM 6th Ctrl Delay	215.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	18	161	5	1620	33	0	0	0
Future Volume (veh/h)	0	0	0	0	18	161	5	1620	33	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	23	206	6	2077	42			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	266	75	2950	59			
Arrive On Green				0.00	0.18	0.18	0.59	0.59	0.59			
Sat Flow, veh/h				0	161	1444	3	4995	101			
Grp Volume(v), veh/h				0	0	229	779	645	701			
Grp Sat Flow(s),veh/h/ln				0	0	1605	1869	1549	1681			
Q Serve(g_s), s				0.0	0.0	6.7	0.0	14.4	14.5			
Cycle Q Clear(g_c), s				0.0	0.0	6.7	14.4	14.4	14.5			
Prop In Lane				0.00		0.90	0.01		0.06			
Lane Grp Cap(c), veh/h				0	0	296	1178	915	993			
V/C Ratio(X)				0.00	0.00	0.77	0.66	0.70	0.71			
Avail Cap(c_a), veh/h				0	0	596	1234	961	1043			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	19.1	7.1	7.1	7.1			
Incr Delay (d2), s/veh				0.0	0.0	1.6	1.5	2.5	2.4			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	2.4	4.1	3.6	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	20.8	8.5	9.6	9.5			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					229			2125				
Approach Delay, s/veh					20.8			9.2				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.7						14.6				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		30.6						18.3				
Max Q Clear Time (g_c+I1), s		16.5						8.7				
Green Ext Time (p_c), s		12.7						0.7				
Intersection Summary												
HCM 6th Ctrl Delay				10.3								
HCM 6th LOS				B								

9: Pacific Hwy & W Admiral Boland Wy/Sassafrass St

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	181	73	462	650	113	201	394	85	109	362	117
Future Volume (veh/h)	124	181	73	462	650	113	201	394	85	109	362	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	133	195	78	497	699	122	216	424	91	117	389	126
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	494	416	519	725	127	238	907	188	142	619	190
Arrive On Green	0.09	0.26	0.26	0.29	0.47	0.47	0.13	0.22	0.22	0.08	0.16	0.16
Sat Flow, veh/h	1781	1870	1576	1781	1550	271	1781	4213	874	1781	3838	1179
Grp Volume(v), veh/h	133	195	78	497	0	821	216	340	175	117	343	172
Grp Sat Flow(s),veh/h/ln	1781	1870	1576	1781	0	1821	1781	1702	1683	1781	1702	1613
Q Serve(g_s), s	9.4	10.9	4.9	34.9	0.0	55.6	15.2	11.1	11.6	8.2	11.9	12.8
Cycle Q Clear(g_c), s	9.4	10.9	4.9	34.9	0.0	55.6	15.2	11.1	11.6	8.2	11.9	12.8
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.52	1.00		0.73
Lane Grp Cap(c), veh/h	157	494	416	519	0	852	238	733	362	142	549	260
V/C Ratio(X)	0.85	0.39	0.19	0.96	0.00	0.96	0.91	0.46	0.48	0.82	0.62	0.66
Avail Cap(c_a), veh/h	157	494	416	543	0	874	238	834	412	245	848	402
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	57.2	38.5	36.3	44.3	0.0	32.8	54.4	43.5	43.8	57.7	49.8	50.1
Incr Delay (d2), s/veh	31.7	0.2	0.1	27.1	0.0	21.8	34.0	0.9	1.9	4.5	2.1	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 BackOfQ(50%),veh/ln	5.6	5.1	1.9	19.3	0.0	29.3	9.0	4.7	5.0	3.9	5.2	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.9	38.7	36.3	71.4	0.0	54.6	88.4	44.4	45.6	62.2	51.8	55.2
LnGrp LOS	F	D	D	E	A	D	F	D	D	E	D	E
Approach Vol, veh/h	406			1318			731			632		
Approach Delay, s/veh	54.7			60.9			57.7			54.7		
Approach LOS	D			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.5	32.7	41.5	38.5	21.4	25.8	15.6	64.4				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	7.5	31.2	38.8	33.5	17.0	31.7	11.2	61.1				
Max Q Clear Time (g_c+110), s	110.2	13.6	36.9	12.9	17.2	14.8	11.4	57.6				
Green Ext Time (p_c), s	0.1	4.9	0.2	0.8	0.0	4.7	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay	58.1
HCM 6th LOS	E

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2050 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	141	260	194	406	0	0	0	0	110	1926	798
Future Volume (veh/h)	0	141	260	194	406	0	0	0	0	110	1926	798
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	160	295	220	461	0				125	2189	907
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	473	401	207	462	0				1099	2273	820
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.62	0.62	0.62
Sat Flow, veh/h	0	1870	1585	573	1911	0				1781	3684	1329
Grp Volume(v), veh/h	0	160	295	300	381	0				125	1998	1098
Grp Sat Flow(s),veh/h/ln	0	1870	1585	782	1617	0				1781	1702	1608
Q Serve(g_s), s	0.0	7.0	17.1	18.3	23.0	0.0				2.9	54.4	61.7
Cycle Q Clear(g_c), s	0.0	7.0	17.1	25.3	23.0	0.0				2.9	54.4	61.7
Prop In Lane	0.00		1.00	0.73		0.00				1.00		0.83
Lane Grp Cap(c), veh/h	0	473	401	260	409	0				1099	2100	992
V/C Ratio(X)	0.00	0.34	0.74	1.15	0.93	0.00				0.11	0.95	1.11
Avail Cap(c_a), veh/h	0	473	401	260	409	0				1099	2100	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.5	34.3	43.0	36.5	0.0				7.9	17.8	19.2
Incr Delay (d2), s/veh	0.0	0.2	6.1	103.9	27.6	0.0				0.1	10.6	62.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	7.2	14.0	12.1	0.0				1.1	21.8	37.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.7	40.4	147.0	64.1	0.0				8.0	28.4	81.5
LnGrp LOS	A	C	D	F	E	A				A	C	F
Approach Vol, veh/h		455			681						3221	
Approach Delay, s/veh		37.0			100.7						45.7	
Approach LOS		D			F						D	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				32.0		68.0		32.0				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				25.3		61.7		25.3				
Max Q Clear Time (g_c+I1), s				19.1		63.7		27.3				
Green Ext Time (p_c), s				0.7		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			53.4									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	96	36	114	0	69	35	538	1395	44	0	0	0
Future Volume (veh/h)	96	36	114	0	69	35	538	1395	44	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	101	38	120	0	73	37	566	1468	46			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	279	84	1193	0	222	113	1004	1980	62			
Arrive On Green	0.19	0.19	0.19	0.00	0.19	0.19	0.56	0.56	0.56			
Sat Flow, veh/h	729	439	1573	0	1163	589	1781	3514	110			
Grp Volume(v), veh/h	139	0	120	0	0	110	566	741	773			
Grp Sat Flow(s), veh/h/ln	168	0	1573	0	0	1752	1781	1777	1847			
Q Serve(g_s), s	3.1	0.0	0.0	0.0	0.0	2.4	9.0	13.9	14.0			
Cycle Q Clear(g_c), s	5.5	0.0	0.0	0.0	0.0	2.4	9.0	13.9	14.0			
Prop In Lane	0.73		1.00	0.00		0.34	1.00		0.06			
Lane Grp Cap(c), veh/h	363	0	1193	0	0	335	1004	1001	1040			
V/C Ratio(X)	0.38	0.00	0.10	0.00	0.00	0.33	0.56	0.74	0.74			
Avail Cap(c_a), veh/h	805	0	1690	0	0	829	1128	1125	1169			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	17.1	0.0	1.4	0.0	0.0	15.5	6.2	7.3	7.3			
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.0	0.2	0.5	2.3	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 BackOfQ(50%), veh/ln	1.3	0.0	1.5	0.0	0.0	0.9	2.2	3.8	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.7	0.0	1.5	0.0	0.0	15.7	6.7	9.6	9.6			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		259			110			2080				
Approach Delay, s/veh		10.2			15.7			8.8				
Approach LOS		B			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		29.5		14.9				14.9				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		28.1		* 23				21.0				
Max Q Clear Time (g_c+I1), s		16.0		7.5				4.4				
Green Ext Time (p_c), s		9.1		1.1				0.3				
Intersection Summary												
HCM 6th Ctrl Delay			9.3									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	58	43	174	8	12	46	592	400	153	842	18
Future Volume (veh/h)	32	58	43	174	8	12	46	592	400	153	842	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	64	47	191	9	13	51	651	440	168	925	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	252	185	394	174	251	71	1962	598	270	2170	47
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.38	0.38	0.08	0.42	0.42
Sat Flow, veh/h	1385	1000	735	1279	690	997	1781	5106	1557	3456	5140	111
Grp Volume(v), veh/h	35	0	111	191	0	22	51	651	440	168	612	333
Grp Sat Flow(s),veh/h/ln	1385	0	1735	1279	0	1687	1781	1702	1557	1728	1702	1846
Q Serve(g_s), s	1.0	0.0	2.7	7.3	0.0	0.5	1.5	4.7	12.6	2.5	6.6	6.6
Cycle Q Clear(g_c), s	1.5	0.0	2.7	10.0	0.0	0.5	1.5	4.7	12.6	2.5	6.6	6.6
Prop In Lane	1.00		0.42	1.00		0.59	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	473	0	436	394	0	424	71	1962	598	270	1437	779
V/C Ratio(X)	0.07	0.00	0.25	0.48	0.00	0.05	0.71	0.33	0.74	0.62	0.43	0.43
Avail Cap(c_a), veh/h	971	0	1060	834	0	1005	137	2001	610	292	1437	779
HCM Platoon Ratio	1.00	1.00	1.00	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	15.4	0.0	15.6	19.6	0.0	14.8	24.7	11.3	13.8	23.3	10.6	10.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.0	4.9	0.2	5.3	2.4	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	1.0	2.0	0.0	0.2	0.7	1.5	4.4	1.0	2.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	0.0	15.7	19.9	0.0	14.8	29.6	11.5	19.0	25.6	10.8	11.0
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	146		213			1142			1113			
Approach Delay, s/veh	15.6		19.4			15.2			13.1			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.5	25.7	17.9		6.5	27.7	17.9					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	4.4	* 20	* 32		4.0	20.1	* 31					
Max Q Clear Time (g_c+14), s	14.5	14.6	4.7		3.5	8.6	12.0					
Green Ext Time (p_c), s	0.0	3.9	0.5		0.0	4.6	0.4					

Intersection Summary

HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

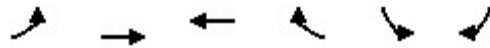
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	4552	10	0	3696	0	4
Future Vol, veh/h	4552	10	0	3696	0	4
Conflicting Peds, #/hr	0	0	0	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	5002	11	0	4062	0	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	2507
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	19
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	19
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		244.3	
HCM LOS					F	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	19	-	-	-		
HCM Lane V/C Ratio	0.231	-	-	-		
HCM Control Delay (s)	244.3	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.7	-	-	-		

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2050 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1361	2693	3777	11	9	127
Future Volume (veh/h)	1361	2693	3777	11	9	127
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1547	3060	4292	0	10	144
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	662	4007	2866		191	170
Arrive On Green	0.19	0.80	0.58	0.00	0.11	0.11
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1547	3060	4292	0	10	144
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	22.6	36.8	67.9	0.0	0.6	10.5
Cycle Q Clear(g_c), s	22.6	36.8	67.9	0.0	0.6	10.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	662	4007	2866		191	170
V/C Ratio(X)	2.34	0.76	1.50		0.05	0.85
Avail Cap(c_a), veh/h	662	4007	2866		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	5.9	25.1	0.0	47.3	51.7
Incr Delay (d2), s/veh	606.5	1.4	224.0	0.0	0.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	65.1	8.2	82.8	0.0	0.3	9.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	654.2	7.3	249.1	0.0	47.3	56.2
LnGrp LOS	F	A	F		D	E
Approach Vol, veh/h		4607	4292	A	154	
Approach Delay, s/veh		224.5	249.1		55.6	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		100.2		17.8	27.0	73.2
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	22.6	* 51
Max Q Clear Time (g_c+I1), s		38.8		12.5	24.6	69.9
Green Ext Time (p_c), s		38.6		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			233.3			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2050 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	1048	87	52	1375	49	230	333	69	38	227	864
Future Volume (veh/h)	504	1048	87	52	1375	49	230	333	69	38	227	864
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	542	1127	94	56	1478	53	247	358	74	41	244	929
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	1644	137	715	2369	85	160	1132	224	53	1058	651
Arrive On Green	0.23	0.50	0.50	0.80	1.00	1.00	0.09	0.27	0.27	0.03	0.21	0.21
Sat Flow, veh/h	1781	3316	276	1781	3499	125	1781	4233	837	1781	5106	1416
Grp Volume(v), veh/h	542	603	618	56	749	782	247	285	147	41	244	929
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1781	1777	1848	1781	1702	1665	1781	1702	1416
Q Serve(g_s), s	31.6	36.3	36.4	0.9	0.0	0.0	12.6	9.4	10.0	3.2	5.6	29.0
Cycle Q Clear(g_c), s	31.6	36.3	36.4	0.9	0.0	0.0	12.6	9.4	10.0	3.2	5.6	29.0
Prop In Lane	1.00		0.15	1.00		0.07	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	402	881	900	715	1203	1251	160	911	445	53	1058	651
V/C Ratio(X)	1.35	0.68	0.69	0.08	0.62	0.63	1.54	0.31	0.33	0.78	0.23	1.43
Avail Cap(c_a), veh/h	402	881	900	715	1203	1251	160	911	445	112	1058	651
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	0.96	0.96	0.96	0.90	0.90	0.90
Uniform Delay (d), s/veh	54.2	27.0	27.0	8.4	0.0	0.0	63.7	41.0	41.2	67.5	46.2	40.6
Incr Delay (d2), s/veh	172.4	4.3	4.2	0.1	1.7	1.7	270.9	0.2	0.5	7.9	0.1	200.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.2	15.9	16.3	0.4	0.6	0.6	17.7	4.0	4.2	1.6	2.4	57.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	226.6	31.3	31.2	8.5	1.7	1.7	334.6	41.2	41.7	75.4	46.4	240.7
LnGrp LOS	F	C	C	A	A	A	F	D	D	E	D	F
Approach Vol, veh/h	1763			1587			679			1214		
Approach Delay, s/veh	91.3			1.9			148.0			196.0		
Approach LOS	F			A			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	42.4	63.4	74.6	17.0	34.0	36.0	102.0				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	8.8	* 33	10.0	* 69	12.6	29.0	31.6	47.2				
Max Q Clear Time (g_c+1/2), s	15.2	12.0	2.9	38.4	14.6	31.0	33.6	2.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	13.2	0.0	0.0	0.0	12.8				

Intersection Summary

HCM 6th Ctrl Delay 95.8

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑↑	↔
Traffic Volume (veh/h)	0	1017	88	66	221	0	0	0	0	423	597	1314
Future Volume (veh/h)	0	1017	88	66	221	0	0	0	0	423	597	1314
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1143	99	74	248	0				475	671	1476
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1293	112	99	1699	0				794	1667	694
Arrive On Green	0.00	0.52	0.52	0.06	0.48	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3398	286	1781	3647	0				1781	3741	1556
Grp Volume(v), veh/h	0	614	628	74	248	0				475	671	1476
Grp Sat Flow(s),veh/h/ln	0	1777	1814	1781	1777	0				1781	1870	1556
Q Serve(g_s), s	0.0	42.9	43.1	5.7	5.5	0.0				28.2	17.0	62.4
Cycle Q Clear(g_c), s	0.0	42.9	43.1	5.7	5.5	0.0				28.2	17.0	62.4
Prop In Lane	0.00		0.16	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	695	710	99	1699	0				794	1667	694
V/C Ratio(X)	0.00	0.88	0.89	0.75	0.15	0.00				0.60	0.40	2.13
Avail Cap(c_a), veh/h	0	695	710	120	1699	0				794	1667	694
HCM Platoon Ratio	1.00	1.33	1.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.52	0.52	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	30.7	30.8	65.2	20.5	0.0				29.3	26.2	38.8
Incr Delay (d2), s/veh	0.0	12.3	12.3	8.0	0.1	0.0				3.3	0.7	512.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	18.5	19.0	2.8	2.3	0.0				13.0	7.9	122.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	43.1	43.1	73.2	20.6	0.0				32.6	26.9	551.3
LnGrp LOS	A	D	D	E	C	A				C	C	F
Approach Vol, veh/h		1242			322						2622	
Approach Delay, s/veh		43.1			32.7						323.1	
Approach LOS		D			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	2.1	61.4		67.8		73.6						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	4.4	* 54		62.4		65.6						
Max Q Clear Time (g_c+I1), s	4.4	45.1		64.4		7.5						
Green Ext Time (p_c), s	0.0	2.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	217.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	901	653	0	0	284	334	29	113	67	0	0	0
Future Volume (veh/h)	901	653	0	0	284	334	29	113	67	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	959	695	0	0	302	355	31	120	71			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1128	1480	0	0	717	634	61	251	133			
Arrive On Green	0.33	0.79	0.00	0.00	0.40	0.40	0.09	0.09	0.09			
Sat Flow, veh/h	3456	1870	0	0	1870	1570	705	2907	1539			
Grp Volume(v), veh/h	959	695	0	0	302	355	81	70	71			
Grp Sat Flow(s), veh/h/ln	1728	1870	0	0	1777	1570	1835	1777	1539			
Q Serve(g_s), s	20.7	9.9	0.0	0.0	9.8	13.9	3.4	3.0	3.5			
Cycle Q Clear(g_c), s	20.7	9.9	0.0	0.0	9.8	13.9	3.4	3.0	3.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.38		1.00			
Lane Grp Cap(c), veh/h	1128	1480	0	0	717	634	158	153	133			
V/C Ratio(X)	0.85	0.47	0.00	0.00	0.42	0.56	0.51	0.46	0.54			
Avail Cap(c_a), veh/h	1128	1480	0	0	717	634	482	466	404			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	1.00	1.00	0.87	0.87	0.87			
Uniform Delay (d), s/veh	25.1	2.8	0.0	0.0	17.1	18.4	34.9	34.8	35.0			
Incr Delay (d2), s/veh	1.9	0.3	0.0	0.0	0.1	0.7	0.8	0.7	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 BackOfQ(50%),veh/ln	8.0	1.5	0.0	0.0	3.6	4.7	1.5	1.3	1.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	3.1	0.0	0.0	17.3	19.1	35.8	35.5	36.1			
LnGrp LOS	C	A	A	A	B	B	D	D	D			
Approach Vol, veh/h	1654			657			222					
Approach Delay, s/veh	17.0			18.2			35.8					
Approach LOS	B			B			D					
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	68.2			31.0		37.2	11.8					
Change Period (Y+Rc), s	4.9			4.9		* 4.9	4.9					
Max Green Setting (Gmax), s	49.2			23.8		* 21	21.0					
Max Q Clear Time (g_c+I1), s	11.9			22.7		15.9	5.5					
Green Ext Time (p_c), s	3.0			0.5		1.3	0.6					

Intersection Summary

HCM 6th Ctrl Delay	18.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

Year 2050 with Project (Alt 4)

Timing Plan: AM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	93	2543	904	0	0	2696
Future Volume (veh/h)	93	2543	904	0	0	2696
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	100	0	972	0	0	2899
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	154		3181	0	260	5177
Arrive On Green	0.09	0.00	0.64	0.00	0.00	0.82
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	100	0	972	0	0	2899
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	6.0	0.0	9.6	0.0	0.0	16.6
Cycle Q Clear(g_c), s	6.0	0.0	9.6	0.0	0.0	16.6
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	154		3181	0	260	5177
V/C Ratio(X)	0.65		0.31	0.00	0.00	0.56
Avail Cap(c_a), veh/h	486		3181	0	708	5177
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	0.09	0.00	0.00	0.58
Uniform Delay (d), s/veh	48.6	0.0	8.9	0.0	0.0	3.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	3.0	0.0	0.0	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.8	0.0	9.0	0.0	0.0	3.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	100	A	972			2899
Approach Delay, s/veh	48.8		9.0			3.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	20.5	75.1			95.6	14.4
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	43.3	22.1			70.2	30.0
Max Q Clear Time (g_c+I), s	10.6	11.6			18.6	8.0
Green Ext Time (p_c), s	0.0	5.7			46.3	0.1

Intersection Summary

HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑↑↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	386	2518	210	148	422	0	0	295	26
Future Volume (veh/h)	0	0	0	386	2518	210	148	422	0	0	295	26
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				411	2679	223	157	449	0	0	314	28
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				370	2578	216	164	1489	0	0	669	58
Arrive On Green				0.20	0.20	0.20	0.18	0.58	0.00	0.00	0.14	0.14
Sat Flow, veh/h				625	4349	364	1781	5274	0	0	4895	408
Grp Volume(v), veh/h				1210	1002	1101	157	449	0	0	223	119
Grp Sat Flow(s),veh/h/ln				1839	1702	1797	1781	1702	0	0	1702	1731
Q Serve(g_s), s				65.2	64.6	65.2	9.6	4.9	0.0	0.0	6.6	7.0
Cycle Q Clear(g_c), s				65.2	64.6	65.2	9.6	4.9	0.0	0.0	6.6	7.0
Prop In Lane				0.34		0.20	1.00		0.00	0.00		0.24
Lane Grp Cap(c), veh/h				1090	1009	1065	164	1489	0	0	482	245
V/C Ratio(X)				1.11	0.99	1.03	0.96	0.30	0.00	0.00	0.46	0.48
Avail Cap(c_a), veh/h				1090	1009	1065	164	1532	0	0	526	268
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.09	0.09	0.09	0.41	0.41	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh				44.2	44.0	44.2	44.7	17.3	0.0	0.0	43.4	43.5
Incr Delay (d2), s/veh				50.9	7.1	19.0	34.4	0.1	0.0	0.0	0.4	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				47.5	31.4	37.0	5.3	1.7	0.0	0.0	2.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				95.2	51.1	63.3	79.1	17.3	0.0	0.0	43.8	44.4
LnGrp LOS				F	D	F	E	B	A	A	D	D
Approach Vol, veh/h					3313			606			342	
Approach Delay, s/veh					71.2			33.3			44.0	
Approach LOS					E			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				16.0	22.0		71.1	38.0				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				10.1	* 17		65.2	33.0				
Max Q Clear Time (g_c+I1), s				11.6	9.0		67.2	6.9				
Green Ext Time (p_c), s				0.0	1.0		0.0	3.4				
Intersection Summary												
HCM 6th Ctrl Delay											63.7	
HCM 6th LOS											E	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	538	3195	0	0	0	0	0	430	106
Future Volume (veh/h)	0	0	0	538	3195	0	0	0	0	0	430	106
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				566	3363	0				0	453	112
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				515	3324	0				0	714	169
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				702	4705	0				0	4238	966
Grp Volume(v), veh/h				1479	2450	0				0	376	189
Grp Sat Flow(s),veh/h/ln				1835	1702	0				0	1702	1631
Q Serve(g_s), s				80.6	78.7	0.0				0.0	11.3	11.9
Cycle Q Clear(g_c), s				80.6	78.7	0.0				0.0	11.3	11.9
Prop In Lane				0.38		0.00				0.00		0.59
Lane Grp Cap(c), veh/h				1345	2494	0				0	597	286
V/C Ratio(X)				1.10	0.98	0.00				0.00	0.63	0.66
Avail Cap(c_a), veh/h				1345	2494	0				0	597	286
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				41.7	41.0	0.0				0.0	42.0	42.3
Incr Delay (d2), s/veh				56.7	14.3	0.0				0.0	5.0	11.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				60.6	40.6	0.0				0.0	5.2	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				98.4	55.3	0.0				0.0	47.0	53.7
LnGrp LOS				F	E	A				A	D	D
Approach Vol, veh/h					3929						565	
Approach Delay, s/veh					71.5						49.2	
Approach LOS					E						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.2		85.8						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				19.3		80.6						
Max Q Clear Time (g_c+I1), s				13.9		82.6						
Green Ext Time (p_c), s				0.6		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											68.7	
HCM 6th LOS											E	
Notes												
User approved pedestrian interval to be less than phase max green.												

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3574	230	107	179	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3574	230	107	179	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3802	245	114	190	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3593	226	220	399	0			
Arrive On Green				0.00	0.24	0.24	0.06	0.06	0.00			
Sat Flow, veh/h				0	5072	309	1274	2403	0			
Grp Volume(v), veh/h				0	2612	1435	162	142	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1808	1807	1777	0			
Q Serve(g_s), s				0.0	80.6	80.6	9.6	8.5	0.0			
Cycle Q Clear(g_c), s				0.0	80.6	80.6	9.6	8.5	0.0			
Prop In Lane				0.00		0.17	0.71		0.00			
Lane Grp Cap(c), veh/h				0	2494	1325	312	307	0			
V/C Ratio(X)				0.00	1.05	1.08	0.52	0.46	0.00			
Avail Cap(c_a), veh/h				0	2494	1325	312	307	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	41.7	41.7	47.4	46.9	0.0			
Incr Delay (d2), s/veh				0.0	31.9	50.6	6.0	5.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	47.7	57.6	5.2	4.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	73.6	92.3	53.4	51.9	0.0			
LnGrp LOS				A	F	F	D	D	A			
Approach Vol, veh/h					4047			304				
Approach Delay, s/veh					80.2			52.7				
Approach LOS					F			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						86.1		23.9				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.6		19.0				
Max Q Clear Time (g_c+I1), s						82.6		11.6				
Green Ext Time (p_c), s						0.0		1.0				
Intersection Summary												
HCM 6th Ctrl Delay						78.3						
HCM 6th LOS						E						
Notes												
User approved pedestrian interval to be less than phase max green.												

SDCRAA ADP EIR
22: Columbia St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	532	3810	0	0	0	0	0	440	75
Future Volume (veh/h)	0	0	0	532	3810	0	0	0	0	0	440	75
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				543	3888	0				0	449	77
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				440	3412	0				0	614	260
Arrive On Green				0.24	0.24	0.00				0.00	0.17	0.17
Sat Flow, veh/h				599	4814	0				0	3647	1504
Grp Volume(v), veh/h				1668	2763	0				0	449	77
Grp Sat Flow(s),veh/h/ln				1840	1702	0				0	1777	1504
Q Serve(g_s), s				80.8	80.8	0.0				0.0	13.2	4.9
Cycle Q Clear(g_c), s				80.8	80.8	0.0				0.0	13.2	4.9
Prop In Lane				0.33		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1352	2500	0				0	614	260
V/C Ratio(X)				1.23	1.10	0.00				0.00	0.73	0.30
Avail Cap(c_a), veh/h				1352	2500	0				0	614	260
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				41.7	41.7	0.0				0.0	43.1	39.7
Incr Delay (d2), s/veh				111.9	53.9	0.0				0.0	7.5	2.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				81.8	55.5	0.0				0.0	6.5	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				153.6	95.5	0.0				0.0	50.6	42.6
LnGrp LOS				F	F	A				A	D	D
Approach Vol, veh/h					4431						526	
Approach Delay, s/veh					117.4						49.4	
Approach LOS					F						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				23.9		86.1						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				19.0		80.8						
Max Q Clear Time (g_c+I1), s				15.2		82.8						
Green Ext Time (p_c), s				1.2		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											110.2	
HCM 6th LOS											F	

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	4231	121	168	153	0	0	0	0
Future Volume (veh/h)	0	0	0	0	4231	121	168	153	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	4362	125	173	158	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3737	106	304	311	0			
Arrive On Green				0.00	0.73	0.73	0.06	0.06	0.00			
Sat Flow, veh/h				0	5268	145	1759	1893	0			
Grp Volume(v), veh/h				0	2896	1591	175	156	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1841	1782	1777	0			
Q Serve(g_s), s				0.0	80.6	80.6	10.5	9.4	0.0			
Cycle Q Clear(g_c), s				0.0	80.6	80.6	10.5	9.4	0.0			
Prop In Lane				0.00		0.08	0.99		0.00			
Lane Grp Cap(c), veh/h				0	2494	1349	308	307	0			
V/C Ratio(X)				0.00	1.16	1.18	0.57	0.51	0.00			
Avail Cap(c_a), veh/h				0	2494	1349	308	307	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	14.7	14.7	47.9	47.3	0.0			
Incr Delay (d2), s/veh				0.0	77.3	88.9	7.4	5.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	51.5	60.0	5.7	5.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	92.0	103.6	55.3	53.2	0.0			
LnGrp LOS				A	F	F	E	D	A			
Approach Vol, veh/h					4487			331				
Approach Delay, s/veh					96.1			54.3				
Approach LOS					F			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						86.1		23.9				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.6		19.0				
Max Q Clear Time (g_c+I1), s						82.6		12.5				
Green Ext Time (p_c), s						0.0		1.0				
Intersection Summary												
HCM 6th Ctrl Delay						93.3						
HCM 6th LOS						F						
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection												
Int Delay, s/veh	10.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	153	649	2	223	0	0	0	37
Future Vol, veh/h	0	0	0	0	153	649	2	223	0	0	0	37
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	158	669	2	230	0	0	0	38
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	100	832	-	-	-	440
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	100	832	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	871	303	0	0	0	565
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	895	382	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	812	301	-	-	-	562
Mov Cap-2 Maneuver				-	-	-	812	301	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	834	380	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		47.1		11.9				
HCM LOS						E		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	301	-	-	562								
HCM Lane V/C Ratio	0.764	-	-	0.068								
HCM Control Delay (s)	47.1	-	-	11.9								
HCM Lane LOS	E	-	-	B								
HCM 95th %tile Q(veh)	5.8	-	-	0.2								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	842	40	2137	849	0
Future Volume (veh/h)	0	0	0	0	0	0	0	842	40	2137	849	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	957	45	2428	965	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	880	271	3698	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.18	0.18	0.49	0.64	0.00
Sat Flow, veh/h		0					0	5149	1536	5023	1826	0
Grp Volume(v), veh/h		0.0					0	957	45	2428	965	0
Grp Sat Flow(s),veh/h/ln							0	1662	1536	1674	1826	0
Q Serve(g_s), s							0.0	19.4	2.7	39.8	32.6	0.0
Cycle Q Clear(g_c), s							0.0	19.4	2.7	39.8	32.6	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	880	271	3698	1740	0
V/C Ratio(X)							0.00	1.09	0.17	0.66	0.55	0.00
Avail Cap(c_a), veh/h							0	880	271	3698	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.78	0.78	0.00
Uniform Delay (d), s/veh							0.0	45.3	38.4	17.4	6.8	0.0
Incr Delay (d2), s/veh							0.0	57.0	0.7	0.3	1.0	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	12.3	1.1	15.8	8.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	102.2	39.2	17.8	7.8	0.0
LnGrp LOS							A	F	D	B	A	A
Approach Vol, veh/h								1002			3393	
Approach Delay, s/veh								99.4			15.0	
Approach LOS								F			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	85.4	24.6					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	45.6	* 19					68.8					
Max Q Clear Time (g_c+l1), s	41.8	21.4					34.6					
Green Ext Time (p_c), s	3.1	0.0					11.4					
Intersection Summary												
HCM 6th Ctrl Delay			34.2									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	70	2002	98	0	0	0	0	514	349	110	522	0
Future Volume (veh/h)	70	2002	98	0	0	0	0	514	349	110	522	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	77	2200	108				0	565	384	121	574	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	93	2826	857				0	777	349	150	1798	0
Arrive On Green	0.18	0.18	0.18				0.00	0.23	0.23	0.17	0.70	0.00
Sat Flow, veh/h	168	5099	1547				0	3572	1530	1781	5274	0
Grp Volume(v), veh/h	856	1421	108				0	565	384	121	574	0
Grp Sat Flow(s),veh/h/ln	1862	1702	1547				0	1702	1530	1781	1702	0
Q Serve(g_s), s	48.7	43.5	6.4				0.0	16.9	25.1	7.2	4.7	0.0
Cycle Q Clear(g_c), s	48.7	43.5	6.4				0.0	16.9	25.1	7.2	4.7	0.0
Prop In Lane	0.09		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1032	1887	857				0	777	349	150	1798	0
V/C Ratio(X)	0.83	0.75	0.13				0.00	0.73	1.10	0.81	0.32	0.00
Avail Cap(c_a), veh/h	1032	1887	857				0	777	349	204	1931	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.78	0.78	0.00
Uniform Delay (d), s/veh	39.9	37.8	22.7				0.0	39.3	42.5	44.9	11.2	0.0
Incr Delay (d2), s/veh	0.8	0.3	0.0				0.0	3.5	77.8	9.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.5	19.9	2.4				0.0	7.3	16.8	3.3	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	38.1	22.7				0.0	42.8	120.3	54.0	11.3	0.0
LnGrp LOS	D	D	C				A	D	F	D	B	A
Approach Vol, veh/h		2385						949			695	
Approach Delay, s/veh		38.3						74.2			18.7	
Approach LOS		D						E			B	
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		65.9		44.1			13.6	30.5				
Change Period (Y+Rc), s		4.9		5.4			4.4	* 5.4				
Max Green Setting (Gmax), s		58.1		41.6			12.6	* 25				
Max Q Clear Time (g_c+I1), s		50.7		6.7			9.2	27.1				
Green Ext Time (p_c), s		7.1		3.3			0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	2431	77	0	0	0	0	0	0	241	765	0
Future Volume (veh/h)	0	2431	77	0	0	0	0	0	0	241	765	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2614	83							259	823	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3193	101							332	1143	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5252	160							1174	4210	0
Grp Volume(v), veh/h	0	1744	953							400	682	0
Grp Sat Flow(s),veh/h/ln	0	1702	1839							1812	1702	0
Q Serve(g_s), s	0.0	53.7	54.5							23.7	21.4	0.0
Cycle Q Clear(g_c), s	0.0	53.7	54.5							23.7	21.4	0.0
Prop In Lane	0.00		0.09							0.65		0.00
Lane Grp Cap(c), veh/h	0	2138	1156							512	962	0
V/C Ratio(X)	0.00	0.82	0.83							0.78	0.71	0.00
Avail Cap(c_a), veh/h	0	2138	1156							512	962	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	37.5	37.8							46.5	45.5	0.0
Incr Delay (d2), s/veh	0.0	3.6	6.8							11.2	4.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.5	28.9							13.2	10.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	41.1	44.6							57.8	49.9	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		2697									1082	
Approach Delay, s/veh		42.3									52.8	
Approach LOS		D									D	
Timer - Assigned Phs		2				4						
Phs Duration (G+Y+Rc), s		74.0				36.0						
Change Period (Y+Rc), s		4.9				4.9						
Max Green Setting (Gmax), s		69.1				31.1						
Max Q Clear Time (g_c+l1), s		56.5				25.7						
Green Ext Time (p_c), s		7.7				1.8						
Intersection Summary												
HCM 6th Ctrl Delay			45.3									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	119	2862	0	0	0	0	0	136	189	0	0	0
Future Volume (veh/h)	119	2862	0	0	0	0	0	136	189	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.91			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	128	3077	0				0	146	203			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	144	3690	0				0	325	263			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	197	5236	0				0	1870	1438			
Grp Volume(v), veh/h	1207	1998	0				0	146	203			
Grp Sat Flow(s),veh/h/ln	1860	1702	0				0	1777	1438			
Q Serve(g_s), s	69.0	60.8	0.0				0.0	8.0	14.8			
Cycle Q Clear(g_c), s	69.0	60.8	0.0				0.0	8.0	14.8			
Prop In Lane	0.11		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1355	2479	0				0	325	263			
V/C Ratio(X)	0.89	0.81	0.00				0.00	0.45	0.77			
Avail Cap(c_a), veh/h	1355	2479	0				0	325	263			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	37.5	34.5	0.0				0.0	40.0	42.8			
Incr Delay (d2), s/veh	9.1	2.9	0.0				0.0	4.5	19.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.7	28.7	0.0				0.0	3.9	6.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	37.4	0.0				0.0	44.5	62.3			
LnGrp LOS	D	D	A				A	D	E			
Approach Vol, veh/h	3205					349						
Approach Delay, s/veh	40.9					54.9						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	85.0					25.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	80.1					20.1						
Max Q Clear Time (g_c+I1), s	71.0					16.8						
Green Ext Time (p_c), s	8.9					0.7						
Intersection Summary												
HCM 6th Ctrl Delay			42.3									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	3096	160	0	0	0	0	0	0	264	711	0
Future Volume (veh/h)	0	3096	160	0	0	0	0	0	0	264	711	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3159	163							269	726	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3261	165							455	908	0
Arrive On Green	0.00	0.22	0.22							0.08	0.08	0.00
Sat Flow, veh/h	0	5144	252							1781	3647	0
Grp Volume(v), veh/h	0	2144	1178							269	726	0
Grp Sat Flow(s),veh/h/ln	0	1702	1823							1781	1777	0
Q Serve(g_s), s	0.0	68.5	70.8							16.0	22.1	0.0
Cycle Q Clear(g_c), s	0.0	68.5	70.8							16.0	22.1	0.0
Prop In Lane	0.00		0.14							1.00		0.00
Lane Grp Cap(c), veh/h	0	2231	1195							455	908	0
V/C Ratio(X)	0.00	0.96	0.99							0.59	0.80	0.00
Avail Cap(c_a), veh/h	0	2231	1195							455	908	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	41.7	42.6							44.8	47.6	0.0
Incr Delay (d2), s/veh	0.0	11.8	22.8							5.6	7.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	34.8	42.0							8.4	11.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	53.6	65.4							50.4	54.9	0.0
LnGrp LOS	A	D	E							D	D	A
Approach Vol, veh/h		3322									995	
Approach Delay, s/veh		57.8									53.7	
Approach LOS		E									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		77.0		33.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		72.1		28.1								
Max Q Clear Time (g_c+l1), s		72.8		24.1								
Green Ext Time (p_c), s		0.0		2.2								
Intersection Summary												
HCM 6th Ctrl Delay			56.8									
HCM 6th LOS			E									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	165	2991	0	0	0	0	0	216	125	0	0	0
Future Volume (veh/h)	165	2991	0	0	0	0	0	216	125	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	179	3251	0				0	235	136			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	189	3671	0				0	390	217			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	257	5172	0				0	2293	1227			
Grp Volume(v), veh/h	1291	2139	0				0	188	183			
Grp Sat Flow(s),veh/h/ln	1857	1702	0				0	1777	1650			
Q Serve(g_s), s	75.2	66.1	0.0				0.0	10.7	11.3			
Cycle Q Clear(g_c), s	75.2	66.1	0.0				0.0	10.7	11.3			
Prop In Lane	0.14		0.00				0.00		0.74			
Lane Grp Cap(c), veh/h	1363	2497	0				0	315	292			
V/C Ratio(X)	0.95	0.86	0.00				0.00	0.60	0.63			
Avail Cap(c_a), veh/h	1363	2497	0				0	315	292			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	39.6	36.1	0.0				0.0	41.6	41.9			
Incr Delay (d2), s/veh	14.7	4.0	0.0				0.0	8.1	9.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/#	42.9	31.5	0.0				0.0	5.4	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	40.2	0.0				0.0	49.7	51.6			
LnGrp LOS	D	D	A				A	D	D			
Approach Vol, veh/h	3430					371						
Approach Delay, s/veh	45.5					50.7						
Approach LOS	D					D						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	85.6					24.4						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	80.7					19.5						
Max Q Clear Time (g_c+l1), s	77.2					13.3						
Green Ext Time (p_c), s	3.5					1.2						
Intersection Summary												
HCM 6th Ctrl Delay			46.0									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	41	1387	1638	131	137	219
Future Volume (veh/h)	41	1387	1638	131	137	219
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	43	1445	1706	136	143	228
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	55	3720	3186	253	563	258
Arrive On Green	0.02	0.50	1.00	1.00	0.16	0.16
Sat Flow, veh/h	1781	5149	4863	374	3456	1585
Grp Volume(v), veh/h	43	1445	1206	636	143	228
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1749	1728	1585
Q Serve(g_s), s	2.8	21.2	0.0	0.0	4.3	16.6
Cycle Q Clear(g_c), s	2.8	21.2	0.0	0.0	4.3	16.6
Prop In Lane	1.00			0.21	1.00	1.00
Lane Grp Cap(c), veh/h	55	3720	2253	1186	563	258
V/C Ratio(X)	0.78	0.39	0.54	0.54	0.25	0.88
Avail Cap(c_a), veh/h	115	3720	2253	1186	1028	471
HCM Platoon Ratio	0.67	0.67	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.79	0.79	1.00	1.00
Uniform Delay (d), s/veh	57.4	12.8	0.0	0.0	43.1	48.3
Incr Delay (d2), s/veh	6.7	0.2	0.7	1.4	0.1	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	8.5	0.2	0.5	1.9	14.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	64.1	13.0	0.7	1.4	43.2	52.2
LnGrp LOS	E	B	A	A	D	D
Approach Vol, veh/h		1488	1842		371	
Approach Delay, s/veh		14.5	1.0		48.7	
Approach LOS		B	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		93.9		24.1	8.1	85.8
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 72		35.1	7.6	60.2
Max Q Clear Time (g_c+I1), s		23.2		18.6	4.8	2.0
Green Ext Time (p_c), s		33.2		0.6	0.0	45.2

Intersection Summary

HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	135	1264	21	4	1747	3	0	9	15	16	0	43
Future Volume (veh/h)	135	1264	21	4	1747	3	0	9	15	16	0	43
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		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	139	1303	22	4	1801	0	0	9	15	16	0	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	590	3596	61	60	2011		33	11	19	229	0	103
Arrive On Green	0.66	1.00	1.00	0.03	0.40	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5046	85	1781	4985	1585	1781	615	1026	3456	0	1556
Grp Volume(v), veh/h	139	858	467	4	1801	0	0	0	24	16	0	44
Grp Sat Flow(s), veh/h/ln	1781	1662	1808	1781	1662	1585	1781	0	1641	1728	0	1556
Q Serve(g_s), s	3.7	0.0	0.0	0.3	39.8	0.0	0.0	0.0	1.7	0.5	0.0	3.2
Cycle Q Clear(g_c), s	3.7	0.0	0.0	0.3	39.8	0.0	0.0	0.0	1.7	0.5	0.0	3.2
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.63	1.00		1.00
Lane Grp Cap(c), veh/h	590	2368	1289	60	2011		33	0	30	229	0	103
V/C Ratio(X)	0.24	0.36	0.36	0.07	0.90		0.00	0.00	0.79	0.07	0.00	0.43
Avail Cap(c_a), veh/h	590	2368	1289	60	2011		60	0	56	996	0	448
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.9	0.0	0.0	55.2	32.9	0.0	0.0	0.0	57.7	51.7	0.0	52.9
Incr Delay (d2), s/veh	0.1	0.4	0.7	0.2	6.7	0.0	0.0	0.0	15.6	0.0	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	0.1	0.3	0.1	16.3	0.0	0.0	0.0	0.8	0.2	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.0	0.4	0.7	55.4	39.6	0.0	0.0	0.0	73.2	51.7	0.0	54.0
LnGrp LOS	B	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1464			1805			24			60		
Approach Delay, s/veh	1.8			39.6			73.2			53.4		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.8			12.7	44.8	53.4		7.1				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.0	56.1		34.0	12.4	* 48		4.0				
Max Q Clear Time (g_c+I), s	12.3	2.0		5.2	5.7	41.8		3.7				
Green Ext Time (p_c), s	0.0	23.7		0.2	0.1	5.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay 23.6

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	935	8	700	2665	0	9	56	353	0	34	181
Future Volume (veh/h)	268	935	8	700	2665	0	9	56	353	0	34	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	276	964	8	722	2747	0	9	58	0	0	35	187
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	532	2207	853	756	2225	0	382	207		0	111	153
Arrive On Green	0.30	0.44	0.44	0.22	0.35	0.00	0.11	0.11	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1530	3456	6537	0	3456	1870	1585	0	1870	2578
Grp Volume(v), veh/h	276	964	8	722	2747	0	9	58	0	0	35	187
Grp Sat Flow(s), veh/h/ln	1781	1662	1530	1728	1570	0	1728	1870	1585	0	1870	1289
Q Serve(g_s), s	15.2	15.8	0.3	24.4	41.8	0.0	0.3	3.4	0.0	0.0	2.1	7.0
Cycle Q Clear(g_c), s	15.2	15.8	0.3	24.4	41.8	0.0	0.3	3.4	0.0	0.0	2.1	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	532	2207	853	756	2225	0	382	207		0	111	153
V/C Ratio(X)	0.52	0.44	0.01	0.96	1.23	0.00	0.02	0.28		0.00	0.32	1.22
Avail Cap(c_a), veh/h	532	2207	853	756	2225	0	1084	586		0	111	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	22.7	11.8	45.5	38.1	0.0	46.8	48.2	0.0	0.0	53.2	55.5
Incr Delay (d2), s/veh	0.4	0.6	0.0	3.6	106.0	0.0	0.0	0.3	0.0	0.0	1.6	144.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6.4	6.0	0.1	10.4	31.5	0.0	0.1	1.6	0.0	0.0	1.0	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.7	23.3	11.9	49.1	144.1	0.0	46.8	48.4	0.0	0.0	54.8	200.4
LnGrp LOS	C	C	B	D	F	A	D	D		A	D	F
Approach Vol, veh/h	1248			3469			67			222		
Approach Delay, s/veh	25.8			124.3			48.2			177.5		
Approach LOS	C			F			D			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.2	58.0		11.9	41.0	47.2		17.9				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	25.8	28.3		7.0	12.6	* 42		37.0				
Max Q Clear Time (g_c+20.4), s	20.4	17.8		9.0	17.2	43.8		5.4				
Green Ext Time (p_c), s	0.0	6.6		0.0	0.0	0.0		0.2				

Intersection Summary

HCM 6th Ctrl Delay 101.1

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	63	23	2	2	70	346	29	2	700	5
Future Volume (veh/h)	2	2	63	23	2	2	70	346	29	2	700	5
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		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	2	67	24	20	-10	74	368	31	2	745	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	2	83	58	48	93	181	1245	104	182	1364	9
Arrive On Green	0.05	0.05	0.05	0.06	0.06	0.00	0.10	0.38	0.38	0.10	0.38	0.38
Sat Flow, veh/h	1781	45	1515	993	828	1585	1781	3307	277	1781	3617	24
Grp Volume(v), veh/h	2	0	69	44	0	-10	74	197	202	2	366	384
Grp Sat Flow(s), veh/h/ln	1781	0	1560	1821	0	1585	1781	1777	1807	1781	1777	1865
Q Serve(g_s), s	0.0	0.0	1.7	0.9	0.0	0.0	1.5	3.0	3.1	0.0	6.3	6.3
Cycle Q Clear(g_c), s	0.0	0.0	1.7	0.9	0.0	0.0	1.5	3.0	3.1	0.0	6.3	6.3
Prop In Lane	1.00		0.97	0.55		1.00	1.00		0.15	1.00		0.01
Lane Grp Cap(c), veh/h	98	0	86	107	0	93	181	669	680	182	670	703
V/C Ratio(X)	0.02	0.00	0.81	0.41	0.00	-0.11	0.41	0.29	0.30	0.01	0.55	0.55
Avail Cap(c_a), veh/h	182	0	159	1347	0	1172	227	1450	1474	182	1405	1474
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	0.0	18.3	17.8	0.0	0.0	16.5	8.6	8.6	15.8	9.6	9.6
Incr Delay (d2), s/veh	0.1	0.0	12.2	0.9	0.0	0.0	0.6	0.2	0.2	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.8	0.4	0.0	0.0	0.5	0.8	0.9	0.0	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	0.0	30.5	18.8	0.0	0.0	17.1	8.8	8.8	15.8	10.1	10.1
LnGrp LOS	B	A	C	B	A	A	B	A	A	B	B	B
Approach Vol, veh/h	71			34			473			752		
Approach Delay, s/veh	30.2			24.3			10.1			10.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	18.8		6.2	8.0	18.8		6.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	32.0	32.0		4.0	5.0	31.0		29.0				
Max Q Clear Time (g_c+I), s	5.1	5.1		3.7	3.5	8.3		2.9				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	3.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay 11.5

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	299	2	2	237	342	310
Future Volume (veh/h)	299	2	2	237	342	310
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	309	0	2	0	353	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	798	419	644		539	
Arrive On Green	0.22	0.00	0.34	0.00	0.16	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	309	0	2	0	353	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	3.2	0.0	0.0	0.0	4.2	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	0.0	4.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	798	419	644		539	
V/C Ratio(X)	0.39	0.00	0.00		0.65	
Avail Cap(c_a), veh/h	818	429	644		1031	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	0.0	9.4	0.0	17.3	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.0	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.7	0.0	9.4	0.0	18.6	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		309	2	A	353	A
Approach Delay, s/veh		14.7	9.4		18.6	
Approach LOS		B	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.8		10.8		19.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		10.0		13.0		15.0
Max Q Clear Time (g_c+I1), s		5.2		6.2		2.0
Green Ext Time (p_c), s		0.5		0.7		0.0

Intersection Summary

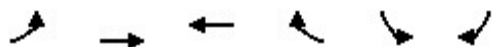
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

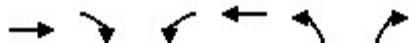
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Traffic Vol, veh/h	9	321	157	0	0	1
Future Vol, veh/h	9	321	157	0	0	1
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	373	183	0	0	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	190	0	-	0	398	101
Stage 1	-	-	-	-	190	-
Stage 2	-	-	-	-	208	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1381	-	-	-	580	935
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1372	-	-	-	567	927
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	801	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		8.9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1372	-	-	-	-	927
HCM Lane V/C Ratio	0.008	-	-	-	-	0.001
HCM Control Delay (s)	7.6	0	-	-	-	8.9
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Volume (veh/h)	0	2905	5445	0	0	0
Future Volume (veh/h)	0	2905	5445	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	3158	5918	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	6934	7012
Grp Volume(v), veh/h	0	3158	5918	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	773	763
V/C Ratio(X)	0.00	1.23	2.30	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	773	763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	105.8	586.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	23.1	109.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	119.3	599.5	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		3158	5918	1077	1255	504
Approach Delay, s/veh		119.3	599.5		8.1	
Approach LOS		F	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3572	91	252	1844	35	346
Future Volume (veh/h)	3572	91	252	1844	35	346
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3800	97	268	1962	37	368
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	3347	799	252	4038	482	386
Arrive On Green	0.53	0.53	0.15	1.00	0.27	0.27
Sat Flow, veh/h	6537	1500	3456	6537	1781	1427
Grp Volume(v), veh/h	3800	97	268	1962	37	368
Grp Sat Flow(s), veh/h/ln	1570	1500	1728	1570	1781	1427
Q Serve(g_s), s	62.9	3.8	8.6	0.0	1.8	29.9
Cycle Q Clear(g_c), s	62.9	3.8	8.6	0.0	1.8	29.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3347	799	252	4038	482	386
V/C Ratio(X)	1.14	0.12	1.06	0.49	0.08	0.95
Avail Cap(c_a), veh/h	3347	799	252	4038	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.94	0.94	1.00	1.00
Uniform Delay (d), s/veh	27.6	13.8	50.4	0.0	32.1	42.3
Incr Delay (d2), s/veh	61.4	0.0	72.9	0.4	0.0	33.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	65.3	1.2	5.9	0.1	0.8	14.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	88.9	13.8	123.3	0.4	32.1	75.7
LnGrp LOS	F	B	F	A	C	E
Approach Vol, veh/h	3897			2230	405	
Approach Delay, s/veh	87.1			15.2	71.8	
Approach LOS	F			B	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	30.0	68.2		81.2	36.8	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	62.8			75.8	32.0	
Max Q Clear Time (g_c+110), s	64.9			2.0	31.9	
Green Ext Time (p_c), s	0.0	0.0		57.7	0.0	

Intersection Summary

HCM 6th Ctrl Delay	61.6
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



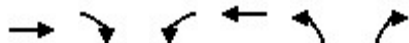
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰	↑	
Traffic Volume (veh/h)	11	3634	0	6	1873	72	0	0	0	5	0	5
Future Volume (veh/h)	11	3634	0	6	1873	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	3825	0	6	1972	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4109	0	60	5294	204	0	34	0	93	0	28
Arrive On Green	0.02	1.00	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	6249	241	0	1870	0	1752	0	1571
Grp Volume(v), veh/h	12	3825	0	6	1487	561	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1779	0	1870	0	1752	0	1571
Q Serve(g_s), s	0.8	0.0	0.0	0.4	8.3	8.3	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	8.3	8.3	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.14	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4109	0	60	3991	1507	0	34	0	93	0	28
V/C Ratio(X)	0.61	0.93	0.00	0.10	0.37	0.37	0.00	0.00	0.00	0.05	0.00	0.18
Avail Cap(c_a), veh/h	60	4109	0	60	3991	1507	0	507	0	536	0	426
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.89	0.89	0.89	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.4	0.0	0.0	55.3	2.0	2.0	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	1.0	0.5	0.0	0.2	0.2	0.6	0.0	0.0	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 BackOfQ(50%),veh/ln	0.3	0.2	0.0	0.2	1.1	1.4	0.0	0.0	0.0	0.2	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	0.5	0.0	55.5	2.3	2.6	0.0	0.0	0.0	57.1	0.0	58.2
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3837			2054			0			10		
Approach Delay, s/veh	0.7			2.5			0.0			57.6		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.8	10.3		0.0				
Green Ext Time (p_c), s	0.0	65.2		0.0	0.0	45.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3592	4	28	1986	0	19
Future Volume (veh/h)	3592	4	28	1986	0	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3862	4	30	2135	0	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4403	5	38	4540	0	25
Arrive On Green	0.86	0.86	0.02	0.91	0.00	0.02
Sat Flow, veh/h	5307	5	1781	5149	0	1521
Grp Volume(v), veh/h	2495	1371	30	2135	0	21
Grp Sat Flow(s), veh/h/ln	1662	1825	1781	1662	0	1597
Q Serve(g_s), s	57.5	57.7	2.2	8.9	0.0	1.7
Cycle Q Clear(g_c), s	57.5	57.7	2.2	8.9	0.0	1.7
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2846	1562	38	4540	0	26
V/C Ratio(X)	0.88	0.88	0.79	0.47	0.00	0.81
Avail Cap(c_a), veh/h	2850	1565	54	4590	0	216
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	5.5	64.7	0.9	0.0	65.1
Incr Delay (d2), s/veh	3.9	6.8	26.5	0.3	0.0	42.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	12.5	1.3	0.1	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.4	12.3	91.2	1.2	0.0	107.8
LnGrp LOS	A	B	F	A	A	F
Approach Vol, veh/h	3866			2165	21	
Approach Delay, s/veh	10.4			2.4	107.8	
Approach LOS	B			A	F	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	7.2	118.9		126.2	6.7	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.5	
Max Green Setting (Gmax), s	113.9			122.3	18.0	
Max Q Clear Time (g_c+14), s	59.7			10.9	3.7	
Green Ext Time (p_c), s	0.0	54.1		92.0	0.0	

Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	781.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	568	0	0	1911	1519
Future Vol, veh/h	0	568	0	0	1911	1519
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	631	0	0	2123	1688
Major/Minor	Minor2		Major2			
Conflicting Flow All	2977	1916			-	0
Stage 1	2977	-			-	-
Stage 2	0	-			-	-
Critical Hdwy	5.74	7.14			-	-
Critical Hdwy Stg 1	6.64	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	3.82	3.92			-	-
Pot Cap-1 Maneuver	27	~ 49			-	-
Stage 1	13	-			-	-
Stage 2	-	-			-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	26	~ 49			-	-
Mov Cap-2 Maneuver	26	-			-	-
Stage 1	13	-			-	-
Stage 2	-	-			-	-
Approach	EB		SB			
HCM Control Delay, \$	5502.9				0	
HCM LOS	F					
Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR		
Capacity (veh/h)		- 49	-	-		
HCM Lane V/C Ratio		- 12.88	-	-		
HCM Control Delay (s)		\$ 5502.9	-	-		
HCM Lane LOS		A F	-	-		
HCM 95th %tile Q(veh)		- 75.9	-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	270	1001	117	60	1181	594	49	38	23	359	103	277
Future Volume (veh/h)	270	1001	117	60	1181	594	49	38	23	359	103	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	303	1125	131	67	1327	667	55	43	26	403	116	311
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	329	2395	722	85	1695	510	243	349	211	488	627	547
Arrive On Green	0.18	0.47	0.47	0.10	0.66	0.66	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	5106	1540	1781	5106	1537	517	990	598	1322	1777	1552
Grp Volume(v), veh/h	303	1125	131	67	1327	667	55	0	69	403	116	311
Grp Sat Flow(s),veh/h/ln	1781	1702	1540	1781	1702	1537	517	0	1588	1322	1777	1552
Q Serve(g_s), s	19.7	17.7	5.8	4.3	21.5	39.2	5.8	0.0	3.5	35.0	5.3	19.1
Cycle Q Clear(g_c), s	19.7	17.7	5.8	4.3	21.5	39.2	25.0	0.0	3.5	38.5	5.3	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	329	2395	722	85	1695	510	243	0	560	488	627	547
V/C Ratio(X)	0.92	0.47	0.18	0.79	0.78	1.31	0.23	0.00	0.12	0.83	0.19	0.57
Avail Cap(c_a), veh/h	356	2395	722	151	1695	510	247	0	567	494	634	554
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.80	0.80	0.80	0.81	0.81	0.81	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	21.3	18.2	52.8	16.8	19.8	41.0	0.0	25.9	38.9	26.5	30.9
Incr Delay (d2), s/veh	22.5	0.5	0.4	4.8	3.0	149.4	0.2	0.0	0.0	12.9	0.4	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	6.8	2.1	1.9	5.2	27.1	1.4	0.0	1.3	12.9	2.3	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	21.9	18.6	57.5	19.8	169.2	41.2	0.0	25.9	51.8	26.9	33.8
LnGrp LOS	E	C	B	E	B	F	D	A	C	D	C	C
Approach Vol, veh/h		1559			2061			124			830	
Approach Delay, s/veh		30.9			69.4			32.7			41.6	
Approach LOS		C			E			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	61.4		46.5	26.2	45.3		46.5				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	10.0	* 51		42.1	23.6	36.9		42.1				
Max Q Clear Time (g_c+I1), s	6.3	19.7		40.5	21.7	41.2		27.0				
Green Ext Time (p_c), s	0.0	15.5		1.1	0.1	0.0		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			50.2									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	734	0	0	957	467	0	0	0	644	0	45
Future Volume (veh/h)	31	734	0	0	957	467	0	0	0	644	0	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	864	0	0	1126	0	0	0	0	807	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	2311	0	2	2088		0	2	1	888	467	0
Arrive On Green	0.03	0.65	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.25	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3558	1870	0
Grp Volume(v), veh/h	36	864	0	0	1126	0	0	0	0	807	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1779	1870	0
Q Serve(g_s), s	2.4	13.3	0.0	0.0	22.6	0.0	0.0	0.0	0.0	26.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	13.3	0.0	0.0	22.6	0.0	0.0	0.0	0.0	26.0	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	46	2311	0	2	2088		0	2	1	888	467	0
V/C Ratio(X)	0.79	0.37	0.00	0.00	0.54		0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap(c_a), veh/h	62	2311	0	62	2088		0	476	403	1116	586	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.23	0.00	0.00
Uniform Delay (d), s/veh	57.2	9.5	0.0	0.0	14.7	0.0	0.0	0.0	0.0	43.0	0.0	0.0
Incr Delay (d2), s/veh	26.4	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	2.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.7	0.0	0.0	8.4	0.0	0.0	0.0	0.0	11.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.5	10.0	0.0	0.0	15.2	0.0	0.0	0.0	0.0	45.1	0.0	0.0
LnGrp LOS	F	A	A	A	B		A	A	A	D	A	A
Approach Vol, veh/h	900			1126			0			807		
Approach Delay, s/veh	12.9			15.2			0.0			45.1		
Approach LOS	B			B			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	82.6		35.4	7.4	75.2		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s		* 27		37.0	4.1	25.8		30.0				
Max Q Clear Time (g_c+I10), s		15.3		28.0	4.4	24.6		0.0				
Green Ext Time (p_c), s	0.0	7.8		1.4	0.0	1.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

Year 2050 with Project (Alt 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	620	715	297	124	407	182	197	966	106	238	1327	205
Future Volume (veh/h)	620	715	297	124	407	182	197	966	106	238	1327	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	653	753	313	131	428	192	207	1017	112	251	1397	216
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	449	799	332	157	572	339	256	1158	127	197	1215	529
Arrive On Green	0.25	0.33	0.33	0.09	0.16	0.16	0.07	0.36	0.36	0.06	0.34	0.34
Sat Flow, veh/h	1781	2427	1008	1781	3554	1550	3456	3224	355	3456	3554	1547
Grp Volume(v), veh/h	653	551	515	131	428	192	207	560	569	251	1397	216
Grp Sat Flow(s),veh/h/ln	1781	1777	1659	1781	1777	1550	1728	1777	1802	1728	1777	1547
Q Serve(g_s), s	29.3	35.0	35.0	8.4	13.3	6.6	6.8	34.2	34.3	6.6	39.7	5.9
Cycle Q Clear(g_c), s	29.3	35.0	35.0	8.4	13.3	6.6	6.8	34.2	34.3	6.6	39.7	5.9
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	449	585	546	157	572	339	256	638	647	197	1215	529
V/C Ratio(X)	1.45	0.94	0.94	0.83	0.75	0.57	0.81	0.88	0.88	1.28	1.15	0.41
Avail Cap(c_a), veh/h	449	617	576	184	888	478	256	638	647	197	1215	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	37.8	37.9	52.0	46.4	16.7	52.9	34.8	34.8	54.7	38.2	6.7
Incr Delay (d2), s/veh	216.0	21.9	23.2	19.8	0.7	0.5	16.1	15.7	15.6	157.8	77.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	18.5	17.5	4.6	5.9	2.8	3.5	17.3	17.6	7.2	30.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	259.4	59.8	61.0	71.8	47.1	17.2	69.0	50.5	50.4	212.5	115.3	9.0
LnGrp LOS	F	E	E	E	D	B	E	D	D	F	F	A
Approach Vol, veh/h	1719			751			1336			1864		
Approach Delay, s/veh	136.0			43.8			53.3			116.1		
Approach LOS	F			D			D			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	47.0	47.0	14.7	43.4	13.0	45.0	34.5	23.6				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	60.6	* 38	12.0	40.3	8.6	35.8	23.6	* 29				
Max Q Clear Time (g_c+1/3), s	19.6	36.3	10.4	37.0	8.8	41.7	31.3	15.3				
Green Ext Time (p_c), s	0.0	0.8	0.0	1.1	0.0	0.0	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay	97.7
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	560	148	313	430	141	220	177	408	118	150	108
Future Volume (veh/h)	73	560	148	313	430	141	220	177	408	118	150	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.92	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	596	157	333	457	150	234	188	434	126	160	115
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	1113	619	299	643	502	186	1078	600	153	1013	422
Arrive On Green	0.06	0.31	0.31	0.09	0.34	0.34	0.10	0.30	0.30	0.09	0.29	0.29
Sat Flow, veh/h	1781	3554	1446	3456	1870	1459	1781	3554	1524	1781	3554	1481
Grp Volume(v), veh/h	78	596	157	333	457	150	234	188	434	126	160	115
Grp Sat Flow(s),veh/h/ln	1781	1777	1446	1728	1870	1459	1781	1777	1524	1781	1777	1481
Q Serve(g_s), s	4.8	15.4	7.9	9.6	23.6	8.4	11.6	4.3	27.0	7.7	3.7	6.7
Cycle Q Clear(g_c), s	4.8	15.4	7.9	9.6	23.6	8.4	11.6	4.3	27.0	7.7	3.7	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	99	1113	619	299	643	502	186	1078	600	153	1013	422
V/C Ratio(X)	0.79	0.54	0.25	1.11	0.71	0.30	1.26	0.17	0.72	0.82	0.16	0.27
Avail Cap(c_a), veh/h	122	1197	653	299	664	517	186	1203	653	192	1216	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	31.5	21.1	50.7	31.6	26.6	49.7	28.4	28.9	49.9	29.7	30.8
Incr Delay (d2), s/veh	18.7	0.5	0.3	86.6	3.0	0.2	152.0	0.1	3.6	16.4	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 BackOfQ(50%),veh/ln	2.7	6.6	2.7	7.7	11.0	2.9	13.0	1.9	10.3	4.1	1.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.5	31.9	21.4	137.3	34.6	26.8	201.7	28.5	32.5	66.3	29.7	30.9
LnGrp LOS	E	C	C	F	C	C	F	C	C	E	C	C
Approach Vol, veh/h		831			940			856			401	
Approach Delay, s/veh		33.6			69.8			77.9			41.6	
Approach LOS		C			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	40.7	17.0	38.4	11.6	44.1	15.0	40.4				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	9.6	37.4	11.6	38.0	7.6	39.4	12.0	37.6				
Max Q Clear Time (g_c+l1), s	11.6	17.4	13.6	8.7	6.8	25.6	9.7	29.0				
Green Ext Time (p_c), s	0.0	5.5	0.0	0.9	0.0	2.1	0.0	2.0				
Intersection Summary												
HCM 6th Ctrl Delay			58.4									
HCM 6th LOS			E									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	54	0	2	6	2	85	2	564	6	68	349	78
Future Volume (veh/h)	54	0	2	6	2	85	2	564	6	68	349	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.97	0.97		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	0	2	7	2	93	2	620	7	75	384	86
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	523	3	12	471	115	522	5	1489	17	102	1425	306
Arrive On Green	0.28	0.00	0.28	0.28	0.28	0.28	0.00	0.29	0.29	0.06	0.34	0.34
Sat Flow, veh/h	1217	11	42	1096	411	1538	1781	5202	59	1781	4177	898
Grp Volume(v), veh/h	61	0	0	9	0	93	2	405	222	75	310	160
Grp Sat Flow(s), veh/h/ln	1270	0	0	1507	0	1538	1781	1702	1857	1781	1702	1671
Q Serve(g_s), s	1.3	0.0	0.0	0.0	0.0	1.7	0.0	3.8	3.8	1.6	2.6	2.7
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.1	0.0	1.7	0.0	3.8	3.8	1.6	2.6	2.7
Prop In Lane	0.97		0.03	0.78		1.00	1.00		0.03	1.00		0.54
Lane Grp Cap(c), veh/h	538	0	0	587	0	522	5	974	531	102	1161	570
V/C Ratio(X)	0.11	0.00	0.00	0.02	0.00	0.18	0.44	0.42	0.42	0.74	0.27	0.28
Avail Cap(c_a), veh/h	1224	0	0	1373	0	1350	182	1812	988	346	2117	1039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	10.2	0.0	9.1	19.5	11.3	11.3	18.1	9.3	9.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	22.7	0.4	0.7	3.9	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 BackOfQ(50%), veh/ln	0.3	0.0	0.0	0.0	0.0	0.4	0.0	1.2	1.3	0.7	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.7	0.0	0.0	10.2	0.0	9.2	42.2	11.7	12.0	22.0	9.5	9.7
LnGrp LOS	B	A	A	B	A	A	D	B	B	C	A	A
Approach Vol, veh/h		61			102			629			545	
Approach Delay, s/veh		10.7			9.3			11.9			11.3	
Approach LOS		B			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	16.6		15.9	4.5	18.7		15.9				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	7.6	* 21		32.0	4.0	24.3		32.0				
Max Q Clear Time (g_c+I), s	13.6	5.8		3.5	2.0	4.7		3.7				
Green Ext Time (p_c), s	0.0	4.5		0.2	0.0	3.3		0.2				

Intersection Summary

HCM 6th Ctrl Delay 11.4

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	8	190	184	13	4	687	687	192	6	751	14
Future Volume (veh/h)	4	8	190	184	13	4	687	687	192	6	751	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.82	1.00		0.89	1.00		0.96	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	9	207	200	14	4	747	747	209	7	816	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	326	228	224	509	383	548	1891	808	12	848	16
Arrive On Green	0.03	0.17	0.17	0.13	0.27	0.27	0.31	0.53	0.53	0.01	0.24	0.24
Sat Flow, veh/h	1781	1870	1307	1781	1870	1407	1781	3554	1518	1781	3564	66
Grp Volume(v), veh/h	4	9	207	200	14	4	747	747	209	7	407	424
Grp Sat Flow(s),veh/h/ln	1781	1870	1307	1781	1870	1407	1781	1777	1518	1781	1777	1853
Q Serve(g_s), s	0.3	0.6	22.5	16.0	0.8	0.3	44.6	18.1	10.8	0.6	32.8	32.8
Cycle Q Clear(g_c), s	0.3	0.6	22.5	16.0	0.8	0.3	44.6	18.1	10.8	0.6	32.8	32.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	49	326	228	224	509	383	548	1891	808	12	423	441
V/C Ratio(X)	0.08	0.03	0.91	0.89	0.03	0.01	1.36	0.40	0.26	0.58	0.96	0.96
Avail Cap(c_a), veh/h	55	326	228	326	516	388	548	1891	808	49	423	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.7	49.7	58.7	62.4	38.7	38.5	50.2	20.1	18.4	71.8	54.6	54.6
Incr Delay (d2), s/veh	0.3	0.0	35.4	15.0	0.0	0.0	174.8	0.2	0.2	15.3	34.5	33.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	9.7	8.2	0.4	0.1	46.4	7.6	3.9	0.3	18.7	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.9	49.7	94.2	77.4	38.7	38.5	225.0	20.3	18.6	87.1	89.1	88.3
LnGrp LOS	E	D	F	E	D	D	F	C	B	F	F	F
Approach Vol, veh/h	220				218		1703				838	
Approach Delay, s/veh	91.9				74.2		109.9				88.7	
Approach LOS	F				E		F				F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	85.8	22.6	30.1	49.0	43.2	8.4	44.4				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	1.0	73.1	26.5	18.0	44.6	* 35	4.5	40.0				
Max Q Clear Time (g_c+I), s	12.6	20.1	18.0	24.5	46.6	34.8	2.3	2.8				
Green Ext Time (p_c), s	0.0	9.5	0.2	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 100.0

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

4: Pacific Hwy/Pacific Hwy SB Off Ramp & Washington St

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	480	94	176	177	0	0	0	0	150	56	102
Future Volume (veh/h)	0	480	94	176	177	0	0	0	0	150	56	102
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	505	99	185	186	0				108	128	107
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	384	767	338	278	531	0				453	476	739
Arrive On Green	0.00	0.22	0.22	0.16	0.16	0.00				0.25	0.25	0.25
Sat Flow, veh/h	1781	3554	1567	1781	3572	0				1781	1870	1561
Grp Volume(v), veh/h	0	505	99	185	186	0				108	128	107
Grp Sat Flow(s), veh/h/ln	1781	1777	1567	1781	1702	0				1781	1870	1561
Q Serve(g_s), s	0.0	5.0	2.1	3.8	1.9	0.0				1.9	2.1	1.5
Cycle Q Clear(g_c), s	0.0	5.0	2.1	3.8	1.9	0.0				1.9	2.1	1.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	384	767	338	278	531	0				453	476	739
V/C Ratio(X)	0.00	0.66	0.29	0.67	0.35	0.00				0.24	0.27	0.14
Avail Cap(c_a), veh/h	643	1283	566	317	606	0				1360	1428	1534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	12.7	15.4	14.6	0.0				11.5	11.6	5.8
Incr Delay (d2), s/veh	0.0	0.4	0.2	4.6	0.4	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				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	1.5	0.5	1.5	0.6	0.0				0.6	0.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.3	12.9	20.0	15.1	0.0				11.6	11.7	5.9
LnGrp LOS	A	B	B	C	B	A				B	B	A
Approach Vol, veh/h	604			371			343					
Approach Delay, s/veh	14.0			17.5			9.8					
Approach LOS	B			B			A					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	12.4			16.1			10.3					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	14.0			29.6			6.9					
Max Q Clear Time (g_c+I1), s	7.0			4.1			5.8					
Green Ext Time (p_c), s	1.3			0.8			0.3					

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	315	628	0	1	540	91	142	12	197	4	0	265
Future Volume (veh/h)	315	628	0	1	540	91	142	12	197	4	0	265
Initial Q (Qb), 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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	342	683	0	1	587	99	154	13	214	4	0	288
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	1983	0	48	847	142	335	17	277	1	0	90
Arrive On Green	0.21	0.56	0.00	0.29	0.29	0.29	0.19	0.19	0.19	0.06	0.00	0.06
Sat Flow, veh/h	1781	3647	0	1	2973	499	1781	89	1472	21	0	1519
Grp Volume(v), veh/h	342	683	0	369	0	318	154	0	227	292	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1869	0	1604	1781	0	1561	1540	0	0
Q Serve(g_s), s	14.2	8.0	0.0	0.0	0.0	13.4	5.8	0.0	10.5	4.5	0.0	0.0
Cycle Q Clear(g_c), s	14.2	8.0	0.0	13.3	0.0	13.4	5.8	0.0	10.5	4.5	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.31	1.00		0.94	0.01		0.99
Lane Grp Cap(c), veh/h	381	1983	0	580	0	457	335	0	293	91	0	0
V/C Ratio(X)	0.90	0.34	0.00	0.64	0.00	0.70	0.46	0.00	0.77	3.20	0.00	0.00
Avail Cap(c_a), veh/h	387	2578	0	876	0	712	610	0	534	91	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.1	9.2	0.0	24.2	0.0	24.2	27.4	0.0	29.3	35.7	0.0	0.0
Incr Delay (d2), s/veh	23.1	0.0	0.0	1.4	0.0	2.3	0.4	0.0	1.7	10.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	2.4	0.0	5.5	0.0	4.9	2.4	0.0	3.9	27.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	9.2	0.0	25.6	0.0	26.5	27.8	0.0	31.0	1053.9	0.0	0.0
LnGrp LOS	D	A	A	C	A	C	C	A	C	F	A	A
Approach Vol, veh/h	1025				687		381				292	
Approach Delay, s/veh	23.5				26.0		29.7				1053.9	
Approach LOS	C				C		C				F	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	46.8		8.5		20.7	26.0	20.7					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 55		4.5		16.5	33.7	26.0					
Max Q Clear Time (g_c+I1), s	10.0		6.5		16.2	15.4	12.5					
Green Ext Time (p_c), s	2.9		0.0		0.0	4.4	1.0					

Intersection Summary

HCM 6th Ctrl Delay	151.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	545	194	314	357	0	0	0	0	510	389	341
Future Volume (veh/h)	0	545	194	314	357	0	0	0	0	510	389	341
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	574	204	331	376	0				537	409	359
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1622	709	407	2227	0				915	480	397
Arrive On Green	0.00	0.46	0.46	0.24	1.00	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3647	1553	3456	3647	0				3563	1870	1545
Grp Volume(v), veh/h	0	574	204	331	376	0				537	409	359
Grp Sat Flow(s),veh/h/ln	0	1777	1553	1728	1777	0				1781	1870	1545
Q Serve(g_s), s	0.0	8.8	6.9	7.6	0.0	0.0				11.1	17.5	18.9
Cycle Q Clear(g_c), s	0.0	8.8	6.9	7.6	0.0	0.0				11.1	17.5	18.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1622	709	407	2227	0				915	480	397
V/C Ratio(X)	0.00	0.35	0.29	0.81	0.17	0.00				0.59	0.85	0.91
Avail Cap(c_a), veh/h	0	1622	709	601	2227	0				937	492	406
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	14.8	14.3	31.2	0.0	0.0				27.3	29.7	30.2
Incr Delay (d2), s/veh	0.0	0.6	1.0	3.1	0.2	0.0				0.6	12.5	22.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	2.3	2.8	0.0	0.0				4.6	9.2	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.4	15.3	34.3	0.2	0.0				27.9	42.2	52.5
LnGrp LOS	A	B	B	C	A	A				C	D	D
Approach Vol, veh/h		778			707						1305	
Approach Delay, s/veh		15.4			16.1						39.2	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	4.3	43.2		26.5		57.5						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	14.6	33.1		22.1		52.1						
Max Q Clear Time (g_c+I), s	19.6	10.8		20.9		2.0						
Green Ext Time (p_c), s	0.3	5.2		0.6		2.7						

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	187	820	0	0	604	1283	98	377	162	0	0	0
Future Volume (veh/h)	187	820	0	0	604	1283	98	377	162	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	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			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	203	891	0	0	657	1395	107	410	176			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	625	2461	0	0	1612	704	144	585	251			
Arrive On Green	0.36	1.00	0.00	0.00	0.45	0.45	0.19	0.19	0.19			
Sat Flow, veh/h	3456	3647	0	0	3647	1552	754	3067	1316			
Grp Volume(v), veh/h	203	891	0	0	657	1395	260	219	214			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1552	1833	1702	1602			
Q Serve(g_s), s	3.6	0.0	0.0	0.0	10.4	38.1	11.2	10.0	10.5			
Cycle Q Clear(g_c), s	3.6	0.0	0.0	0.0	10.4	38.1	11.2	10.0	10.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.41		0.82			
Lane Grp Cap(c), veh/h	625	2461	0	0	1612	704	349	325	305			
V/C Ratio(X)	0.33	0.36	0.00	0.00	0.41	1.98	0.74	0.67	0.70			
Avail Cap(c_a), veh/h	625	2461	0	0	1612	704	567	527	496			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	23.1	0.0	0.0	0.0	15.4	22.9	32.1	31.6	31.8			
Incr Delay (d2), s/veh	0.3	0.4	0.0	0.0	0.8	446.9	1.2	0.9	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 BackOfQ(50%),veh/ln	1.3	0.1	0.0	0.0	3.9	99.2	5.0	4.1	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	0.4	0.0	0.0	16.2	469.9	33.3	32.5	32.9			
LnGrp LOS	C	A	A	A	B	F	C	C	C			
Approach Vol, veh/h	1094			2052			693					
Approach Delay, s/veh	4.6			324.6			32.9					
Approach LOS	A			F			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	63.1			20.1			43.0			20.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	48.2			5.7			* 38			26.0		
Max Q Clear Time (g_c+I1), s	2.0			5.6			40.1			13.2		
Green Ext Time (p_c), s	8.5			0.0			0.0			2.4		

Intersection Summary

HCM 6th Ctrl Delay	180.8
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	25	212	11	1806	25	0	0	0
Future Volume (veh/h)	0	0	0	0	25	212	11	1806	25	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No		No						
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	27	233	12	1985	27			
Peak Hour Factor				0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	35	298	86	2748	37			
Arrive On Green				0.00	0.21	0.21	0.55	0.55	0.55			
Sat Flow, veh/h				0	167	1443	9	5027	68			
Grp Volume(v), veh/h				0	0	260	741	614	669			
Grp Sat Flow(s),veh/h/ln				0	0	1611	1868	1549	1687			
Q Serve(g_s), s				0.0	0.0	6.9	0.0	13.4	13.4			
Cycle Q Clear(g_c), s				0.0	0.0	6.9	13.4	13.4	13.4			
Prop In Lane				0.00		0.90	0.02		0.04			
Lane Grp Cap(c), veh/h				0	0	332	1102	847	922			
V/C Ratio(X)				0.00	0.00	0.78	0.67	0.72	0.73			
Avail Cap(c_a), veh/h				0	0	656	1145	882	961			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	16.9	7.6	7.6	7.7			
Incr Delay (d2), s/veh				0.0	0.0	1.5	1.7	3.2	3.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	2.4	3.9	3.6	3.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	18.4	9.4	10.8	10.6			
LnGrp LOS				A	A	B	A	B	B			
Approach Vol, veh/h					260			2024				
Approach Delay, s/veh					18.4			10.2				
Approach LOS					B			B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		30.2						14.8				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		25.6						18.3				
Max Q Clear Time (g_c+I1), s		15.4						8.9				
Green Ext Time (p_c), s		9.2						0.8				
Intersection Summary												
HCM 6th Ctrl Delay				11.2								
HCM 6th LOS				B								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	264	73	435	596	146	194	376	164	100	366	111
Future Volume (veh/h)	131	264	73	435	596	146	194	376	164	100	366	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	284	78	468	641	157	209	404	176	108	394	119
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	510	429	485	658	161	217	779	318	133	680	195
Arrive On Green	0.09	0.27	0.27	0.27	0.45	0.45	0.12	0.22	0.22	0.07	0.17	0.17
Sat Flow, veh/h	1781	1870	1573	1781	1449	355	1781	3510	1434	1781	3893	1114
Grp Volume(v), veh/h	141	284	78	468	0	798	209	391	189	108	342	171
Grp Sat Flow(s),veh/h/ln	1781	1870	1573	1781	0	1805	1781	1702	1541	1781	1702	1604
Q Serve(g_s), s	9.4	15.6	4.5	31.1	0.0	51.9	14.0	12.1	13.0	7.2	11.0	11.8
Cycle Q Clear(g_c), s	9.4	15.6	4.5	31.1	0.0	51.9	14.0	12.1	13.0	7.2	11.0	11.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.93	1.00		0.69
Lane Grp Cap(c), veh/h	162	510	429	485	0	819	217	755	342	133	595	280
V/C Ratio(X)	0.87	0.56	0.18	0.97	0.00	0.97	0.96	0.52	0.55	0.81	0.57	0.61
Avail Cap(c_a), veh/h	162	515	433	485	0	824	217	850	385	230	875	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	37.4	33.3	43.0	0.0	32.0	52.3	41.0	41.3	54.6	45.3	45.7
Incr Delay (d2), s/veh	35.3	0.8	0.1	31.9	0.0	25.1	50.1	1.0	2.6	4.4	1.6	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 BackOfQ(50%),veh/ln	5.8	7.3	1.8	18.0	0.0	27.9	9.2	5.1	5.2	3.3	4.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	89.0	38.1	33.4	74.9	0.0	57.1	102.4	42.0	43.9	59.0	46.9	49.5
LnGrp LOS	F	D	C	E	A	E	F	D	D	E	D	D
Approach Vol, veh/h	503					1266		789		621		
Approach Delay, s/veh	51.7					63.7		58.5		49.7		
Approach LOS	D					E		E		D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.9	31.9	37.0	37.6	19.0	26.2	15.3	59.3				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	29.9	29.9	32.6	33.0	14.6	30.8	10.9	54.7				
Max Q Clear Time (g_c+I), s	15.0	15.0	33.1	17.6	16.0	13.8	11.4	53.9				
Green Ext Time (p_c), s	0.1	5.1	0.0	1.1	0.0	4.7	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			57.8									
HCM 6th LOS			E									

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2050 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	221	379	155	337	0	0	0	0	100	1719	750
Future Volume (veh/h)	0	221	379	155	337	0	0	0	0	100	1719	750
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	226	387	158	344	0				102	1754	765
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	506	429	201	496	0				990	1978	797
Arrive On Green	0.00	0.27	0.27	0.27	0.27	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	1870	1585	438	1919	0				1781	3558	1433
Grp Volume(v), veh/h	0	226	387	218	284	0				102	1672	847
Grp Sat Flow(s),veh/h/ln	0	1870	1585	655	1617	0				1781	1702	1587
Q Serve(g_s), s	0.0	7.5	17.7	12.8	11.7	0.0				2.0	32.1	38.1
Cycle Q Clear(g_c), s	0.0	7.5	17.7	20.3	11.7	0.0				2.0	32.1	38.1
Prop In Lane	0.00		1.00	0.73		0.00				1.00		0.90
Lane Grp Cap(c), veh/h	0	506	429	260	438	0				990	1892	882
V/C Ratio(X)	0.00	0.45	0.90	0.84	0.65	0.00				0.10	0.88	0.96
Avail Cap(c_a), veh/h	0	506	429	260	438	0				991	1893	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	22.7	26.4	31.4	24.2	0.0				7.8	14.5	15.9
Incr Delay (d2), s/veh	0.0	0.2	21.3	20.3	3.1	0.0				0.1	5.6	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	8.9	5.4	4.7	0.0				0.7	12.0	16.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.9	47.7	51.7	27.3	0.0				7.9	20.1	37.2
LnGrp LOS	A	C	D	D	C	A				A	C	D
Approach Vol, veh/h		613			502						2621	
Approach Delay, s/veh		38.6			37.9						25.2	
Approach LOS		D			D						C	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				27.0		48.0		27.0				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				20.3		41.7		20.3				
Max Q Clear Time (g_c+l1), s				19.7		40.1		22.3				
Green Ext Time (p_c), s				0.2		1.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			29.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↖		↗		↖	↑↑				
Traffic Volume (veh/h)	166	34	109	0	55	25	460	1454	71	0	0	0
Future Volume (veh/h)	166	34	109	0	55	25	460	1454	71	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	193	40	127	0	64	29	535	1691	83			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	344	50	1310	0	307	139	1025	1982	97			
Arrive On Green	0.25	0.25	0.25	0.00	0.25	0.25	0.58	0.58	0.58			
Sat Flow, veh/h	949	197	1576	0	1217	552	1781	3444	168			
Grp Volume(v), veh/h	233	0	127	0	0	93	535	867	907			
Grp Sat Flow(s),veh/h/ln	146	0	1576	0	0	1769	1781	1777	1835			
Q Serve(g_s), s	10.2	0.0	0.0	0.0	0.0	2.6	11.6	25.7	26.3			
Cycle Q Clear(g_c), s	12.9	0.0	0.0	0.0	0.0	2.6	11.6	25.7	26.3			
Prop In Lane	0.83		1.00	0.00		0.31	1.00		0.09			
Lane Grp Cap(c), veh/h	393	0	1310	0	0	447	1025	1023	1056			
V/C Ratio(X)	0.59	0.00	0.10	0.00	0.00	0.21	0.52	0.85	0.86			
Avail Cap(c_a), veh/h	535	0	1474	0	0	588	1067	1065	1099			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	23.8	0.0	1.0	0.0	0.0	18.7	8.2	11.2	11.3			
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	0.0	0.1	0.4	6.4	6.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	0.0	0.0	1.0	3.6	9.6	10.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	0.0	1.1	0.0	0.0	18.8	8.6	17.5	18.1			
LnGrp LOS	C	A	A	A	A	B	A	B	B			
Approach Vol, veh/h	360				93		2309					
Approach Delay, s/veh	16.7				18.8		15.7					
Approach LOS	B				B		B					
Timer - Assigned Phs	2		4				8					
Phs Duration (G+Y+Rc), s	41.0		22.4				22.4					
Change Period (Y+Rc), s	4.5		* 6.4				6.4					
Max Green Setting (Gmax), s	38.0		* 23				21.1					
Max Q Clear Time (g_c+I1), s	28.3		14.9				4.6					
Green Ext Time (p_c), s	8.2		1.2				0.3					
Intersection Summary												
HCM 6th Ctrl Delay		15.9										
HCM 6th LOS		B										
Notes												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	49	61	188	18	156	31	531	345	25	967	16
Future Volume (veh/h)	33	49	61	188	18	156	31	531	345	25	967	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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	52	64	198	19	164	33	559	363	26	1018	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	371	216	266	436	47	408	52	2034	618	84	2033	34
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.40	0.40	0.02	0.39	0.39
Sat Flow, veh/h	1196	760	935	1270	166	1435	1781	5106	1552	3456	5169	86
Grp Volume(v), veh/h	35	0	116	198	0	183	33	559	363	26	670	365
Grp Sat Flow(s),veh/h/ln	1196	0	1695	1270	0	1601	1781	1702	1552	1728	1702	1851
Q Serve(g_s), s	1.2	0.0	2.7	7.2	0.0	4.7	0.9	3.8	9.3	0.4	7.6	7.6
Cycle Q Clear(g_c), s	5.9	0.0	2.7	9.9	0.0	4.7	0.9	3.8	9.3	0.4	7.6	7.6
Prop In Lane	1.00		0.55	1.00		0.90	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	371	0	482	436	0	456	52	2034	618	84	1339	728
V/C Ratio(X)	0.09	0.00	0.24	0.45	0.00	0.40	0.63	0.27	0.59	0.31	0.50	0.50
Avail Cap(c_a), veh/h	779	0	1060	849	0	976	140	2088	635	272	1345	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	17.1	0.0	14.0	17.8	0.0	14.7	24.4	10.3	12.0	24.4	11.7	11.7
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.3	0.0	0.2	4.6	0.1	1.9	0.8	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.9	2.0	0.0	1.6	0.4	1.1	2.9	0.1	2.3	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	14.1	18.0	0.0	14.9	29.0	10.5	14.0	25.2	11.9	12.2
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h	151			381			955			1061		
Approach Delay, s/veh	14.8			16.5			12.4			12.4		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	5.6	26.0	19.3		5.9	25.7	19.3					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	1.0	* 21	* 32		4.0	20.1	* 31					
Max Q Clear Time (g_c+I), s	12.4	11.3	7.9		2.9	9.6	11.9					
Green Ext Time (p_c), s	0.0	5.1	0.5		0.0	4.8	1.1					

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

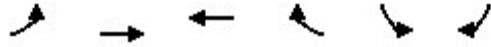
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑			↑↑↑		↗
Traffic Vol, veh/h	4909	13	0	2934	0	1
Future Vol, veh/h	4909	13	0	2934	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	5061	13	0	3025	0	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	-	-	-	2537
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	18
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	18
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		216.8		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	18	-	-	-		
HCM Lane V/C Ratio	0.057	-	-	-		
HCM Control Delay (s)	216.8	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.2	-	-	-		

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↰	↰	↰
Traffic Volume (veh/h)	1432	2908	3327	14	17	113
Future Volume (veh/h)	1432	2908	3327	14	17	113
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1507	3061	3502	0	18	119
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	750	4087	2819		162	145
Arrive On Green	0.22	0.82	0.57	0.00	0.09	0.09
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1507	3061	3502	0	18	119
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	25.6	33.8	66.7	0.0	1.1	8.7
Cycle Q Clear(g_c), s	25.6	33.8	66.7	0.0	1.1	8.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	750	4087	2819		162	145
V/C Ratio(X)	2.01	0.75	1.24		0.11	0.82
Avail Cap(c_a), veh/h	750	4087	2819		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	5.0	25.6	0.0	49.2	52.7
Incr Delay (d2), s/veh	459.3	1.3	109.3	0.0	0.1	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	58.4	6.7	51.6	0.0	0.5	7.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	505.5	6.3	134.9	0.0	49.3	57.1
LnGrp LOS	F	A	F		D	E
Approach Vol, veh/h		4568	3502	A	137	
Approach Delay, s/veh		171.0	134.9		56.1	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		102.0		16.0	30.0	72.0
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	25.6	* 48
Max Q Clear Time (g_c+I1), s		35.8		10.7	27.6	68.7
Green Ext Time (p_c), s		41.5		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			153.7			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	1211	93	57	1327	75	169	357	74	66	213	849
Future Volume (veh/h)	449	1211	93	57	1327	75	169	357	74	66	213	849
Initial Q (Qb), 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		0.95	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	458	1236	95	58	1354	77	172	364	76	67	217	866
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	1705	131	715	2313	131	135	993	198	85	1058	680
Arrive On Green	0.24	0.51	0.51	0.13	0.22	0.22	0.08	0.24	0.24	0.05	0.21	0.21
Sat Flow, veh/h	1781	3343	257	1781	3415	194	1781	4225	844	1781	5106	1444
Grp Volume(v), veh/h	458	656	675	58	703	728	172	290	150	67	217	866
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1781	1777	1832	1781	1702	1666	1781	1702	1444
Q Serve(g_s), s	33.6	40.1	40.3	4.0	49.5	49.7	10.6	10.0	10.6	5.2	4.9	29.0
Cycle Q Clear(g_c), s	33.6	40.1	40.3	4.0	49.5	49.7	10.6	10.0	10.6	5.2	4.9	29.0
Prop In Lane	1.00		0.14	1.00		0.11	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	428	906	930	715	1203	1241	135	800	391	85	1058	680
V/C Ratio(X)	1.07	0.72	0.73	0.08	0.58	0.59	1.28	0.36	0.38	0.79	0.21	1.27
Avail Cap(c_a), veh/h	428	906	930	715	1203	1241	135	800	391	150	1058	680
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.73	0.73	0.73	0.97	0.97	0.97	0.86	0.86	0.86
Uniform Delay (d), s/veh	53.2	26.6	26.7	38.1	36.8	36.9	64.7	44.8	45.0	65.9	46.0	39.4
Incr Delay (d2), s/veh	63.9	5.0	4.9	0.2	1.5	1.5	168.1	0.3	0.7	5.1	0.1	133.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.3	17.6	18.1	1.8	24.0	24.8	11.1	4.3	4.5	2.5	2.1	47.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	117.1	31.6	31.6	38.2	38.3	38.4	232.8	45.1	45.7	71.0	46.1	172.7
LnGrp LOS	F	C	C	D	D	D	F	D	D	E	D	F
Approach Vol, veh/h	1789			1489			612			1150		
Approach Delay, s/veh	53.5			38.3			98.0			142.9		
Approach LOS	D			D			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	1.1	37.9	63.4	76.6	15.0	34.0	38.0	102.0				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	1.8	* 28	10.0	* 71	10.6	29.0	33.6	47.2				
Max Q Clear Time (g_c+I1), s	12.6	12.6	6.0	42.3	12.6	31.0	35.6	51.7				
Green Ext Time (p_c), s	0.0	2.6	0.0	14.3	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	74.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑						↑↑↑	↑
Traffic Volume (veh/h)	0	1129	112	87	184	0	0	0	0	383	500	1308
Future Volume (veh/h)	0	1129	112	87	184	0	0	0	0	383	500	1308
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1227	122	95	200	0				416	543	1422
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1367	136	119	1838	0				707	1486	618
Arrive On Green	0.00	0.14	0.14	0.07	0.52	0.00				0.40	0.40	0.40
Sat Flow, veh/h	0	3357	324	1781	3647	0				1781	3741	1555
Grp Volume(v), veh/h	0	667	682	95	200	0				416	543	1422
Grp Sat Flow(s),veh/h/ln	0	1777	1810	1781	1777	0				1781	1870	1555
Q Serve(g_s), s	0.0	51.7	51.9	7.4	4.0	0.0				25.7	14.3	55.6
Cycle Q Clear(g_c), s	0.0	51.7	51.9	7.4	4.0	0.0				25.7	14.3	55.6
Prop In Lane	0.00		0.18	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	744	758	119	1838	0				707	1486	618
V/C Ratio(X)	0.00	0.90	0.90	0.80	0.11	0.00				0.59	0.37	2.30
Avail Cap(c_a), veh/h	0	744	758	145	1838	0				707	1486	618
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.72	0.72	0.59	0.59	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	57.3	57.4	64.4	17.3	0.0				33.2	29.8	42.2
Incr Delay (d2), s/veh	0.0	11.9	12.1	11.3	0.1	0.0				3.6	0.7	591.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	27.1	27.8	3.7	1.7	0.0				12.0	6.7	122.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	69.3	69.6	75.7	17.4	0.0				36.8	30.5	633.6
LnGrp LOS	A	E	E	E	B	A				D	C	F
Approach Vol, veh/h		1349			295						2381	
Approach Delay, s/veh		69.4			36.1						391.7	
Approach LOS		E			D						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.8	65.2		61.0		79.0						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	1.4	* 58		55.6		72.4						
Max Q Clear Time (g_c+I), s	19.4	53.9		57.6		6.0						
Green Ext Time (p_c), s	0.0	1.6		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	257.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2050 with Project (Alt 4)

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑			↑↑			↑↑	↔			
Traffic Volume (veh/h)	1039	519	0	0	220	331	26	105	93	0	0	0
Future Volume (veh/h)	1039	519	0	0	220	331	26	105	93	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	1117	558	0	0	237	356	28	113	100			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1126	1457	0	0	696	615	67	289	151			
Arrive On Green	0.33	0.78	0.00	0.00	0.39	0.39	0.10	0.10	0.10			
Sat Flow, veh/h	3456	1870	0	0	1870	1570	682	2931	1526			
Grp Volume(v), veh/h	1117	558	0	0	237	356	75	66	100			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1570	1836	1777	1526			
Q Serve(g_s), s	25.8	7.5	0.0	0.0	7.5	14.3	3.1	2.8	5.1			
Cycle Q Clear(g_c), s	25.8	7.5	0.0	0.0	7.5	14.3	3.1	2.8	5.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.37		1.00			
Lane Grp Cap(c), veh/h	1126	1457	0	0	696	615	181	175	151			
V/C Ratio(X)	0.99	0.38	0.00	0.00	0.34	0.58	0.42	0.37	0.66			
Avail Cap(c_a), veh/h	1126	1457	0	0	696	615	482	466	401			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.29	0.29	0.00	0.00	1.00	1.00	0.84	0.84	0.84			
Uniform Delay (d), s/veh	26.9	2.8	0.0	0.0	17.1	19.1	33.9	33.7	34.8			
Incr Delay (d2), s/veh	12.6	0.2	0.0	0.0	0.1	0.9	0.5	0.4	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.6	1.4	0.0	0.0	2.8	4.8	1.4	1.2	1.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	3.0	0.0	0.0	17.2	20.0	34.4	34.1	36.3			
LnGrp LOS	D	A	A	A	B	C	C	C	D			
Approach Vol, veh/h	1675			593			241					
Approach Delay, s/veh	27.3			18.9			35.1					
Approach LOS	C			B			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.2			31.0			36.2			12.8		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	49.2			23.8			* 21			21.0		
Max Q Clear Time (g_c+I1), s	9.5			27.8			16.3			7.1		
Green Ext Time (p_c), s	2.2			0.0			1.1			0.6		

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	177	2216	743	0	0	2926
Future Volume (veh/h)	177	2216	743	0	0	2926
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	181	0	758	0	0	2986
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	213		3181	0	202	4972
Arrive On Green	0.12	0.00	0.64	0.00	0.00	0.79
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	181	0	758	0	0	2986
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.0	0.0	7.1	0.0	0.0	20.8
Cycle Q Clear(g_c), s	11.0	0.0	7.1	0.0	0.0	20.8
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	213		3181	0	202	4972
V/C Ratio(X)	0.85		0.24	0.00	0.00	0.60
Avail Cap(c_a), veh/h	486		3181	0	742	4972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.20	0.00	0.45	0.00	0.00	0.58
Uniform Delay (d), s/veh	47.5	0.0	8.5	0.0	0.0	4.6
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.9	0.0	2.2	0.0	0.0	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	48.3	0.0	8.5	0.0	0.0	4.9
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	181	A	758			2986
Approach Delay, s/veh	48.3		8.5			4.9
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.9	75.1			92.0	18.0
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.8	20.0			70.2	30.0
Max Q Clear Time (g_c+I10), s	10.6	9.1			22.8	13.0
Green Ext Time (p_c), s	0.0	4.7			43.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑↑↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	319	2241	221	167	411	0	0	303	52
Future Volume (veh/h)	0	0	0	319	2241	221	167	411	0	0	303	52
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				329	2310	228	172	424	0	0	312	54
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				331	2474	245	198	1550	0	0	584	96
Arrive On Green				0.19	0.19	0.19	0.22	0.61	0.00	0.00	0.13	0.13
Sat Flow, veh/h				578	4320	427	1781	5274	0	0	4517	715
Grp Volume(v), veh/h				1048	868	951	172	424	0	0	241	125
Grp Sat Flow(s),veh/h/ln				1841	1702	1782	1781	1702	0	0	1702	1660
Q Serve(g_s), s				62.5	54.7	57.8	10.2	4.3	0.0	0.0	7.2	7.8
Cycle Q Clear(g_c), s				62.5	54.7	57.8	10.2	4.3	0.0	0.0	7.2	7.8
Prop In Lane				0.31		0.24	1.00		0.00	0.00		0.43
Lane Grp Cap(c), veh/h				1055	975	1021	198	1550	0	0	458	223
V/C Ratio(X)				0.99	0.89	0.93	0.87	0.27	0.00	0.00	0.53	0.56
Avail Cap(c_a), veh/h				1055	975	1021	198	1634	0	0	529	258
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.22	0.22	0.22	0.39	0.39	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh				44.4	41.3	42.5	42.0	15.9	0.0	0.0	44.3	44.6
Incr Delay (d2), s/veh				11.5	3.1	4.6	14.6	0.0	0.0	0.0	0.6	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 BackOfQ(50%),veh/ln				34.1	25.7	28.8	4.8	1.5	0.0	0.0	3.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.9	44.4	47.1	56.6	15.9	0.0	0.0	44.9	46.0
LnGrp LOS				E	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2867			596			366	
Approach Delay, s/veh					49.5			27.7			45.3	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				18.1	21.2		68.9	39.3				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				12.2	* 17		63.0	35.2				
Max Q Clear Time (g_c+I1), s				12.2	9.8		64.5	6.3				
Green Ext Time (p_c), s				0.0	1.0		0.0	3.3				
Intersection Summary												
HCM 6th Ctrl Delay											45.7	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	393	2857	0	0	0	0	0	401	117
Future Volume (veh/h)	0	0	0	393	2857	0	0	0	0	0	401	117
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.93
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				409	2976	0				0	418	122
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				433	3410	0				0	686	190
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				591	4822	0				0	4077	1081
Grp Volume(v), veh/h				1274	2111	0				0	361	179
Grp Sat Flow(s),veh/h/ln				1841	1702	0				0	1702	1585
Q Serve(g_s), s				74.8	65.0	0.0				0.0	10.8	11.5
Cycle Q Clear(g_c), s				74.8	65.0	0.0				0.0	10.8	11.5
Prop In Lane				0.32		0.00				0.00		0.68
Lane Grp Cap(c), veh/h				1349	2494	0				0	597	278
V/C Ratio(X)				0.94	0.85	0.00				0.00	0.60	0.64
Avail Cap(c_a), veh/h				1349	2494	0				0	597	278
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				39.5	35.8	0.0				0.0	41.8	42.2
Incr Delay (d2), s/veh				14.4	3.8	0.0				0.0	4.5	10.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				42.1	30.8	0.0				0.0	4.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				54.0	39.6	0.0				0.0	46.3	53.1
LnGrp LOS				D	D	A				A	D	D
Approach Vol, veh/h					3385						540	
Approach Delay, s/veh					45.0						48.6	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.2		85.8						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				19.3		80.6						
Max Q Clear Time (g_c+I1), s				13.5		76.8						
Green Ext Time (p_c), s				0.6		2.8						
Intersection Summary												
HCM 6th Ctrl Delay											45.5	
HCM 6th LOS											D	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3110	243	130	185	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3110	243	130	185	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3206	251	134	191	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3527	268	245	382	0			
Arrive On Green				0.00	0.24	0.24	0.06	0.06	0.00			
Sat Flow, veh/h				0	5000	368	1398	2273	0			
Grp Volume(v), veh/h				0	2231	1226	173	152	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1795	1800	1777	0			
Q Serve(g_s), s				0.0	69.8	73.6	10.3	9.1	0.0			
Cycle Q Clear(g_c), s				0.0	69.8	73.6	10.3	9.1	0.0			
Prop In Lane				0.00		0.20	0.78		0.00			
Lane Grp Cap(c), veh/h				0	2485	1310	316	312	0			
V/C Ratio(X)				0.00	0.90	0.94	0.55	0.49	0.00			
Avail Cap(c_a), veh/h				0	2485	1310	316	312	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	37.8	39.2	47.6	47.0	0.0			
Incr Delay (d2), s/veh				0.0	5.7	13.6	6.6	5.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	33.6	40.1	5.6	4.8	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	43.4	52.8	54.2	52.4	0.0			
LnGrp LOS				A	D	D	D	D	A			
Approach Vol, veh/h					3457			325				
Approach Delay, s/veh					46.8			53.4				
Approach LOS					D			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						75.6		12.3				
Green Ext Time (p_c), s						4.6		1.1				
Intersection Summary												
HCM 6th Ctrl Delay											47.3	
HCM 6th LOS											D	

SDCRAA ADP EIR
22: Columbia St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	348	3353	0	0	0	0	0	292	77
Future Volume (veh/h)	0	0	0	348	3353	0	0	0	0	0	292	77
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				366	3529	0				0	307	81
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				337	3497	0				0	630	271
Arrive On Green				0.24	0.24	0.00				0.00	0.18	0.18
Sat Flow, veh/h				461	4959	0				0	3647	1528
Grp Volume(v), veh/h				1466	2429	0				0	307	81
Grp Sat Flow(s),veh/h/ln				1847	1702	0				0	1777	1528
Q Serve(g_s), s				80.3	77.9	0.0				0.0	8.6	5.1
Cycle Q Clear(g_c), s				80.3	77.9	0.0				0.0	8.6	5.1
Prop In Lane				0.25		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1349	2485	0				0	630	271
V/C Ratio(X)				1.09	0.98	0.00				0.00	0.49	0.30
Avail Cap(c_a), veh/h				1349	2485	0				0	630	271
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				41.8	40.8	0.0				0.0	40.7	39.3
Incr Delay (d2), s/veh				51.9	13.5	0.0				0.0	2.7	2.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				59.1	40.1	0.0				0.0	4.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				93.7	54.3	0.0				0.0	43.4	42.1
LnGrp LOS				F	D	A				A	D	D
Approach Vol, veh/h					3895						388	
Approach Delay, s/veh					69.1						43.2	
Approach LOS					E						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				24.4		85.6						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				19.5		80.3						
Max Q Clear Time (g_c+l1), s				10.6		82.3						
Green Ext Time (p_c), s				1.5		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											66.8	
HCM 6th LOS											E	

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK

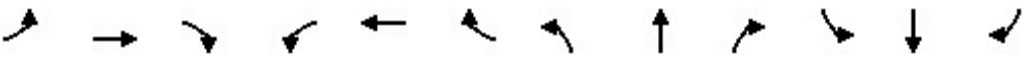


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	3519	100	152	116	0	0	0	0
Future Volume (veh/h)	0	0	0	0	3519	100	152	116	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3666	104	158	121	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3724	105	313	312	0			
Arrive On Green				0.00	0.73	0.73	0.06	0.06	0.00			
Sat Flow, veh/h				0	5270	143	1781	1870	0			
Grp Volume(v), veh/h				0	2433	1337	158	121	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1841	1781	1777	0			
Q Serve(g_s), s				0.0	74.4	78.8	9.5	7.2	0.0			
Cycle Q Clear(g_c), s				0.0	74.4	78.8	9.5	7.2	0.0			
Prop In Lane				0.00		0.08	1.00		0.00			
Lane Grp Cap(c), veh/h				0	2485	1344	313	312	0			
V/C Ratio(X)				0.00	0.98	0.99	0.51	0.39	0.00			
Avail Cap(c_a), veh/h				0	2485	1344	313	312	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	14.1	14.6	47.2	46.1	0.0			
Incr Delay (d2), s/veh				0.0	13.8	23.4	5.7	3.6	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	27.6	34.9	5.0	3.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	27.8	38.0	52.9	49.7	0.0			
LnGrp LOS				A	C	D	D	D	A			
Approach Vol, veh/h					3770			279				
Approach Delay, s/veh					31.4			51.5				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.8		24.2				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.3		19.3				
Max Q Clear Time (g_c+I1), s						80.8		11.5				
Green Ext Time (p_c), s						0.0		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				32.8								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	11.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	145	752	4	205	0	0	0	24
Future Vol, veh/h	0	0	0	0	145	752	4	205	0	0	0	24
Conflicting Peds, #/hr	6	0	0	0	0	6	15	0	0	0	0	15
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	151	783	4	214	0	0	0	25
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	91	940	-	-	-	488
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	91	940	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	883	262	0	0	0	526
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	906	340	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	841	260	-	-	-	523
Mov Cap-2 Maneuver				-	-	-	841	260	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	863	338	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		60.7		12.2				
HCM LOS						F		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	260	-	-	523								
HCM Lane V/C Ratio	0.821	-	-	0.048								
HCM Control Delay (s)	60.7	-	-	12.2								
HCM Lane LOS	F	-	-	B								
HCM 95th %tile Q(veh)	6.5	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	672	84	2323	942	0
Future Volume (veh/h)	0	0	0	0	0	0	0	672	84	2323	942	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	707	88	2445	992	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	873	265	3706	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.18	0.18	0.49	0.64	0.00
Sat Flow, veh/h		0					0	5149	1516	5023	1826	0
Grp Volume(v), veh/h		0.0					0	707	88	2445	992	0
Grp Sat Flow(s),veh/h/ln							0	1662	1516	1674	1826	0
Q Serve(g_s), s							0.0	15.0	5.6	40.2	34.0	0.0
Cycle Q Clear(g_c), s							0.0	15.0	5.6	40.2	34.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	873	265	3706	1740	0
V/C Ratio(X)							0.00	0.81	0.33	0.66	0.57	0.00
Avail Cap(c_a), veh/h							0	873	265	3706	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.73	0.73	0.00
Uniform Delay (d), s/veh							0.0	43.6	39.7	17.5	7.1	0.0
Incr Delay (d2), s/veh							0.0	6.8	1.9	0.3	1.0	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	6.5	2.2	15.9	8.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	50.4	41.6	17.8	8.1	0.0
LnGrp LOS							A	D	D	B	A	A
Approach Vol, veh/h								795			3437	
Approach Delay, s/veh								49.5			15.0	
Approach LOS								D			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	85.5	24.5					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	45.7	* 19					68.8					
Max Q Clear Time (g_c+l1), s	42.2	17.0					36.0					
Green Ext Time (p_c), s	3.0	1.4					11.8					
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	81	2318	96	0	0	0	0	483	369	123	465	0
Future Volume (veh/h)	81	2318	96	0	0	0	0	483	369	123	465	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	84	2390	99				0	498	380	127	479	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	97	2947	891				0	684	305	156	1676	0
Arrive On Green	0.19	0.19	0.19				0.00	0.20	0.20	0.17	0.66	0.00
Sat Flow, veh/h	168	5098	1541				0	3572	1518	1781	5274	0
Grp Volume(v), veh/h	930	1544	99				0	498	380	127	479	0
Grp Sat Flow(s),veh/h/ln	1862	1702	1541				0	1702	1518	1781	1702	0
Q Serve(g_s), s	53.3	47.5	5.8				0.0	15.1	22.1	7.5	4.4	0.0
Cycle Q Clear(g_c), s	53.3	47.5	5.8				0.0	15.1	22.1	7.5	4.4	0.0
Prop In Lane	0.09		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1077	1968	891				0	684	305	156	1676	0
V/C Ratio(X)	0.86	0.78	0.11				0.00	0.73	1.25	0.82	0.29	0.00
Avail Cap(c_a), veh/h	1077	1968	891				0	684	305	220	1838	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	40.3	38.0	21.1				0.0	41.1	44.0	44.6	13.4	0.0
Incr Delay (d2), s/veh	0.9	0.3	0.0				0.0	4.0	135.1	7.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	21.7	2.2				0.0	6.6	19.6	3.4	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	38.3	21.2				0.0	45.2	179.1	52.4	13.5	0.0
LnGrp LOS	D	D	C				A	D	F	D	B	A
Approach Vol, veh/h	2573						878			606		
Approach Delay, s/veh	38.7						103.1			21.6		
Approach LOS	D						F			C		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	68.5			41.5			14.0		27.5			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	60.1			39.6			13.6		* 22			
Max Q Clear Time (g_c+I1), s	55.3			6.4			9.5		24.1			
Green Ext Time (p_c), s	4.7			2.7			0.1		0.0			

Intersection Summary

HCM 6th Ctrl Delay	50.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	2825	117	0	0	0	0	0	0	258	583	0
Future Volume (veh/h)	0	2825	117	0	0	0	0	0	0	258	583	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2912	121							266	601	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3431	140							341	845	0
Arrive On Green	0.00	0.23	0.23							0.08	0.08	0.00
Sat Flow, veh/h	0	5193	205							1495	3873	0
Grp Volume(v), veh/h	0	1957	1076							319	548	0
Grp Sat Flow(s),veh/h/ln	0	1702	1826							1796	1702	0
Q Serve(g_s), s	0.0	60.5	62.3							19.2	17.3	0.0
Cycle Q Clear(g_c), s	0.0	60.5	62.3							19.2	17.3	0.0
Prop In Lane	0.00		0.11							0.83		0.00
Lane Grp Cap(c), veh/h	0	2324	1247							410	777	0
V/C Ratio(X)	0.00	0.84	0.86							0.78	0.70	0.00
Avail Cap(c_a), veh/h	0	2324	1247							410	777	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	36.9	37.6							48.1	47.2	0.0
Incr Delay (d2), s/veh	0.0	3.9	8.0							13.7	5.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	28.7	33.1							10.8	8.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.9	45.7							61.8	52.6	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		3033									867	
Approach Delay, s/veh		42.6									56.0	
Approach LOS		D									E	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		80.0	30.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		75.1	25.1									
Max Q Clear Time (g_c+l1), s		64.3	21.2									
Green Ext Time (p_c), s		7.8	1.1									
Intersection Summary												
HCM 6th Ctrl Delay			45.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	161	3269	0	0	0	0	0	146	200	0	0	0
Future Volume (veh/h)	161	3269	0	0	0	0	0	146	200	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00	1.00					1.00	0.86				
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	166	3370	0				0	151	206			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	172	3737	0				0	299	230			
Arrive On Green	0.25	0.25	0.00				0.00	0.17	0.17			
Sat Flow, veh/h	232	5199	0				0	1870	1365			
Grp Volume(v), veh/h	1331	2205	0				0	151	206			
Grp Sat Flow(s),veh/h/ln	1859	1702	0				0	1777	1365			
Q Serve(g_s), s	77.9	68.4	0.0				0.0	8.5	16.3			
Cycle Q Clear(g_c), s	77.9	68.4	0.0				0.0	8.5	16.3			
Prop In Lane	0.12	0.00					0.00	1.00				
Lane Grp Cap(c), veh/h	1381	2528	0				0	299	230			
V/C Ratio(X)	0.96	0.87	0.00				0.00	0.51	0.90			
Avail Cap(c_a), veh/h	1381	2528	0				0	299	230			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	40.1	36.5	0.0				0.0	41.6	44.8			
Incr Delay (d2), s/veh	17.1	4.5	0.0				0.0	6.0	37.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	45.2	32.7	0.0				0.0	4.3	7.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	41.0	0.0				0.0	47.6	82.6			
LnGrp LOS	E	D	A				A	D	F			
Approach Vol, veh/h	3536					357						
Approach Delay, s/veh	47.1					67.8						
Approach LOS	D					E						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	86.6					23.4						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	81.7					18.5						
Max Q Clear Time (g_c+I1), s	79.9					18.3						
Green Ext Time (p_c), s	1.8					0.1						
Intersection Summary												
HCM 6th Ctrl Delay		49.0										
HCM 6th LOS		D										

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	3502	188	0	0	0	0	0	0	195	476	0
Future Volume (veh/h)	0	3502	188	0	0	0	0	0	0	195	476	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3573	192							199	486	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3630	191							319	636	0
Arrive On Green	0.00	0.24	0.24							0.06	0.06	0.00
Sat Flow, veh/h	0	5129	261							1781	3647	0
Grp Volume(v), veh/h	0	2430	1335							199	486	0
Grp Sat Flow(s),veh/h/ln	0	1702	1818							1781	1777	0
Q Serve(g_s), s	0.0	77.9	80.5							12.0	14.8	0.0
Cycle Q Clear(g_c), s	0.0	77.9	80.5							12.0	14.8	0.0
Prop In Lane	0.00		0.14							1.00		0.00
Lane Grp Cap(c), veh/h	0	2491	1331							319	636	0
V/C Ratio(X)	0.00	0.98	1.00							0.62	0.76	0.00
Avail Cap(c_a), veh/h	0	2491	1331							319	636	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	40.7	41.7							48.1	49.5	0.0
Incr Delay (d2), s/veh	0.0	13.1	25.5							8.9	8.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	39.9	48.4							6.5	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	53.9	67.2							57.0	57.9	0.0
LnGrp LOS	A	D	F							E	E	A
Approach Vol, veh/h		3765									685	
Approach Delay, s/veh		58.6									57.7	
Approach LOS		E									E	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		85.4	24.6									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		80.5	19.7									
Max Q Clear Time (g_c+l1), s		82.5	16.8									
Green Ext Time (p_c), s		0.0	1.1									
Intersection Summary												
HCM 6th Ctrl Delay			58.4									
HCM 6th LOS			E									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	119	3394	0	0	0	0	0	175	105	0	0	0
Future Volume (veh/h)	119	3394	0	0	0	0	0	175	105	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	125	3573	0				0	184	111			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	123	3750	0				0	381	219			
Arrive On Green	0.24	0.24	0.00				0.00	0.18	0.18			
Sat Flow, veh/h	167	5267	0				0	2267	1249			
Grp Volume(v), veh/h	1392	2306	0				0	149	146			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1646			
Q Serve(g_s), s	80.9	72.7	0.0				0.0	8.3	8.8			
Cycle Q Clear(g_c), s	80.9	72.7	0.0				0.0	8.3	8.8			
Prop In Lane	0.09		0.00				0.00		0.76			
Lane Grp Cap(c), veh/h	1369	2504	0				0	312	289			
V/C Ratio(X)	1.02	0.92	0.00				0.00	0.48	0.51			
Avail Cap(c_a), veh/h	1369	2504	0				0	312	289			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.7	38.5	0.0				0.0	40.8	41.0			
Incr Delay (d2), s/veh	28.6	7.0	0.0				0.0	5.2	6.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	51.0	35.4	0.0				0.0	4.1	4.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	45.5	0.0				0.0	46.0	47.3			
LnGrp LOS	F	D	A				A	D	D			
Approach Vol, veh/h		3698						295				
Approach Delay, s/veh		54.8						46.6				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		85.8						24.2				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		80.9						19.3				
Max Q Clear Time (g_c+I1), s		82.9						10.8				
Green Ext Time (p_c), s		0.0						1.1				
Intersection Summary												
HCM 6th Ctrl Delay			54.2									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	23	1380	1306	161	173	241
Future Volume (veh/h)	23	1380	1306	161	173	241
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	25	1484	1404	173	186	259
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	34	3620	3004	370	633	290
Arrive On Green	0.02	0.73	1.00	1.00	0.18	0.18
Sat Flow, veh/h	1781	5149	4648	552	3456	1585
Grp Volume(v), veh/h	25	1484	1041	536	186	259
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1712	1728	1585
Q Serve(g_s), s	1.6	13.7	0.0	0.0	5.5	18.8
Cycle Q Clear(g_c), s	1.6	13.7	0.0	0.0	5.5	18.8
Prop In Lane	1.00			0.32	1.00	1.00
Lane Grp Cap(c), veh/h	34	3620	2226	1147	633	290
V/C Ratio(X)	0.74	0.41	0.47	0.47	0.29	0.89
Avail Cap(c_a), veh/h	115	3620	2226	1147	1086	498
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	57.6	6.3	0.0	0.0	41.6	47.1
Incr Delay (d2), s/veh	9.7	0.3	0.6	1.2	0.1	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.9	0.2	0.4	2.4	15.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.3	6.6	0.6	1.2	41.7	52.4
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1509	1577		445	
Approach Delay, s/veh		7.6	0.8		48.0	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		91.5		26.5	6.6	84.9
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 70		37.1	7.6	58.2
Max Q Clear Time (g_c+I1), s		15.7		20.8	3.6	2.0
Green Ext Time (p_c), s		36.7		0.8	0.0	37.5
Intersection Summary						
HCM 6th Ctrl Delay			9.7			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	137	1384	40	14	1529	6	26	0	7	4	0	16
Future Volume (veh/h)	137	1384	40	14	1529	6	26	0	7	4	0	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		1.00	1.00		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	1427	41	14	1576	0	17	14	7	4	0	16
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	592	3454	99	60	1914		43	27	14	274	0	119
Arrive On Green	0.66	1.00	1.00	0.03	0.38	0.00	0.02	0.02	0.02	0.08	0.00	0.08
Sat Flow, veh/h	1781	4976	143	1781	4985	1585	1781	1122	561	3456	0	1507
Grp Volume(v), veh/h	141	953	515	14	1576	0	17	0	21	4	0	16
Grp Sat Flow(s), veh/h/ln	1781	1662	1796	1781	1662	1585	1781	0	1683	1728	0	1507
Q Serve(g_s), s	3.7	0.0	0.0	0.9	33.6	0.0	1.1	0.0	1.5	0.1	0.0	1.2
Cycle Q Clear(g_c), s	3.7	0.0	0.0	0.9	33.6	0.0	1.1	0.0	1.5	0.1	0.0	1.2
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	592	2307	1247	60	1914		43	0	41	274	0	119
V/C Ratio(X)	0.24	0.41	0.41	0.23	0.82		0.40	0.00	0.52	0.01	0.00	0.13
Avail Cap(c_a), veh/h	592	2307	1247	60	1914		62	0	58	996	0	434
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.8	0.0	0.0	55.5	32.7	0.0	56.7	0.0	56.9	50.1	0.0	50.6
Incr Delay (d2), s/veh	0.1	0.5	0.9	0.7	4.2	0.0	2.2	0.0	3.7	0.0	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 BackOfQ(50%), veh/ln	1.4	0.2	0.3	0.4	13.5	0.0	0.5	0.0	0.7	0.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.9	0.5	0.9	56.2	36.9	0.0	58.9	0.0	60.6	50.1	0.0	50.7
LnGrp LOS	B	A	A	E	D		E	A	E	D	A	D
Approach Vol, veh/h	1609			1590			38			20		
Approach Delay, s/veh	1.8			37.1			59.9			50.6		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	87.6			14.2	44.9	51.1		7.7				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.0	56.0		34.0	14.6	* 45		4.1				
Max Q Clear Time (g_c+I12, s)	2.0			3.2	5.7	35.6		3.5				
Green Ext Time (p_c), s	0.0	27.6		0.0	0.1	8.2		0.0				

Intersection Summary

HCM 6th Ctrl Delay 20.0

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	304	780	8	608	2485	0	9	96	366	0	36	191
Future Volume (veh/h)	304	780	8	608	2485	0	9	96	366	0	36	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	867	9	676	2761	0	10	107	0	0	40	212
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	612	2498	889	679	2172	0	257	139		0	111	155
Arrive On Green	0.34	0.50	0.50	0.20	0.35	0.00	0.07	0.07	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1539	3456	6537	0	3456	1870	1585	0	1870	2606
Grp Volume(v), veh/h	338	867	9	676	2761	0	10	107	0	0	40	212
Grp Sat Flow(s), veh/h/ln	1781	1662	1539	1728	1570	0	1728	1870	1585	0	1870	1303
Q Serve(g_s), s	18.1	12.4	0.3	23.1	40.8	0.0	0.3	6.6	0.0	0.0	2.4	7.0
Cycle Q Clear(g_c), s	18.1	12.4	0.3	23.1	40.8	0.0	0.3	6.6	0.0	0.0	2.4	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	612	2498	889	679	2172	0	257	139		0	111	155
V/C Ratio(X)	0.55	0.35	0.01	0.99	1.27	0.00	0.04	0.77		0.00	0.36	1.37
Avail Cap(c_a), veh/h	612	2498	889	679	2172	0	1084	586		0	111	155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.98	0.98	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	17.8	10.7	47.3	38.6	0.0	50.7	53.6	0.0	0.0	53.3	55.5
Incr Delay (d2), s/veh	0.6	0.4	0.0	9.2	122.4	0.0	0.0	3.3	0.0	0.0	2.0	202.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.6	4.6	0.1	10.4	33.3	0.0	0.1	3.2	0.0	0.0	1.2	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.0	18.2	10.7	56.6	161.0	0.0	50.7	56.9	0.0	0.0	55.3	258.0
LnGrp LOS	C	B	B	E	F	A	D	E		A	E	F
Approach Vol, veh/h	1214			3437			117			252		
Approach Delay, s/veh	22.0			140.5			56.4			225.8		
Approach LOS	C			F			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.6	64.8		11.9	46.2	46.2		13.7				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	23.2	30.9		7.0	13.6	* 41		37.0				
Max Q Clear Time (g_c+Q), s	25.1	14.4		9.0	20.1	42.8		8.6				
Green Ext Time (p_c), s	0.0	8.4		0.0	0.0	0.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay 114.2

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	99	41	2	2	64	491	33	2	679	3
Future Volume (veh/h)	3	0	99	41	2	2	64	491	33	2	679	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	0	104	43	34	-20	67	517	35	2	715	3
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	0	126	48	38	75	179	1244	84	179	1341	6
Arrive On Green	0.08	0.00	0.08	0.05	0.05	0.00	0.10	0.37	0.37	0.10	0.37	0.37
Sat Flow, veh/h	1781	0	1571	1016	803	1585	1781	3367	227	1781	3628	15
Grp Volume(v), veh/h	3	0	104	77	0	-20	67	272	280	2	350	368
Grp Sat Flow(s),veh/h/ln	1781	0	1571	1820	0	1585	1781	1777	1818	1781	1777	1867
Q Serve(g_s), s	0.1	0.0	2.6	1.7	0.0	0.0	1.4	4.5	4.6	0.0	6.1	6.1
Cycle Q Clear(g_c), s	0.1	0.0	2.6	1.7	0.0	0.0	1.4	4.5	4.6	0.0	6.1	6.1
Prop In Lane	1.00		1.00	0.56		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	143	0	126	86	0	75	179	656	671	179	656	690
V/C Ratio(X)	0.02	0.00	0.83	0.90	0.00	-0.27	0.37	0.41	0.42	0.01	0.53	0.53
Avail Cap(c_a), veh/h	179	0	158	1329	0	1157	224	1432	1464	179	1387	1457
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	18.0	18.8	0.0	0.0	16.7	9.3	9.3	16.1	9.8	9.8
Incr Delay (d2), s/veh	0.0	0.0	22.5	12.0	0.0	0.0	0.5	0.3	0.3	0.0	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.6	0.9	0.0	0.0	0.5	1.3	1.3	0.0	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	40.5	30.8	0.0	0.0	17.2	9.6	9.6	16.1	10.3	10.3
LnGrp LOS	B	A	D	C	A	A	B	A	A	B	B	B
Approach Vol, veh/h	107				57				619		720	
Approach Delay, s/veh	39.8				41.7				10.5		10.3	
Approach LOS	D				D				B		B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	18.7	7.2		8.0	18.7	5.9					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	32.0	32.0	4.0		5.0	31.0	29.0					
Max Q Clear Time (g_c+I2), s	6.6	6.6	4.6		3.4	8.1	3.7					
Green Ext Time (p_c), s	0.0	2.7	0.0		0.0	3.5	0.2					

Intersection Summary

HCM 6th Ctrl Delay 13.7

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	363	2	2	334	399	316
Future Volume (veh/h)	363	2	2	334	399	316
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	400	0	2	0	438	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	825	433	568		636	
Arrive On Green	0.23	0.00	0.30	0.00	0.18	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	400	0	2	0	438	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	4.2	0.0	0.0	0.0	5.1	0.0
Cycle Q Clear(g_c), s	4.2	0.0	0.0	0.0	5.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	825	433	568		636	
V/C Ratio(X)	0.48	0.00	0.00		0.69	
Avail Cap(c_a), veh/h	999	525	568		1050	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	14.2	0.0	10.4	0.0	16.3	0.0
Incr Delay (d2), s/veh	0.4	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
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	0.0	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.7	0.0	10.4	0.0	17.6	0.0
LnGrp LOS	B	A	B		B	
Approach Vol, veh/h		400	2	A	438	A
Approach Delay, s/veh		14.7	10.4		17.6	
Approach LOS		B	B		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.9		11.9		17.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		12.0		13.0		13.0
Max Q Clear Time (g_c+I1), s		6.2		7.1		2.0
Green Ext Time (p_c), s		0.8		0.9		0.0

Intersection Summary

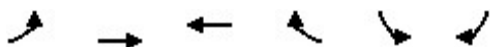
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

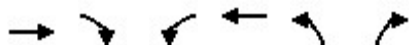
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	13	384	231	0	1	1
Future Vol, veh/h	13	384	231	0	1	1
Conflicting Peds, #/hr	6	0	0	6	0	1
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	452	272	0	1	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	278	0	-	0	534	143
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1282	-	-	-	476	879
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1275	-	-	-	463	873
Mov Cap-2 Maneuver	-	-	-	-	463	-
Stage 1	-	-	-	-	728	-
Stage 2	-	-	-	-	758	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		11		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1275	-	-	-	605	
HCM Lane V/C Ratio	0.012	-	-	-	0.004	
HCM Control Delay (s)	7.9	0.1	-	-	11	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑↑	
Traffic Volume (veh/h)	0	3139	5209	0	0	0
Future Volume (veh/h)	0	3139	5209	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	3412	5662	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	2574	2574	0	9999	9999
Arrive On Green	0.00	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	6958	6958	2516	9340	9274
Grp Volume(v), veh/h	0	3412	5662	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	18.0	18.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	18.0	18.0	0.0	0.0	0.0
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2574	2574	1006	7737	6909
V/C Ratio(X)	0.00	1.33	2.20	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	2574	2574	1006	7737	6909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	0.0	8.1	8.1
Incr Delay (d2), s/veh	0.0	149.4	541.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	30.9	101.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	162.9	554.8	0.0	8.1	8.1
LnGrp LOS	A	F	F	A	A	A
Approach Vol, veh/h		3412	5662	1077	1255	504
Approach Delay, s/veh		162.9	554.8		8.1	
Approach LOS		F	F		A	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				22.5	22.5	22.5
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				18.0	18.0	18.0
Max Q Clear Time (g_c+l1), s				20.0	2.0	20.0
Green Ext Time (p_c), s				0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3924	91	239	1403	70	249
Future Volume (veh/h)	3924	91	239	1403	70	249
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	4045	94	246	1446	72	257
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	3862	912	223	4501	351	281
Arrive On Green	0.61	0.61	0.13	1.00	0.20	0.20
Sat Flow, veh/h	6537	1483	3456	6537	1781	1427
Grp Volume(v), veh/h	4045	94	246	1446	72	257
Grp Sat Flow(s), veh/h/ln	1570	1483	1728	1570	1781	1427
Q Serve(g_s), s	72.6	3.1	7.6	0.0	4.0	20.8
Cycle Q Clear(g_c), s	72.6	3.1	7.6	0.0	4.0	20.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3862	912	223	4501	351	281
V/C Ratio(X)	1.05	0.10	1.11	0.32	0.21	0.91
Avail Cap(c_a), veh/h	3862	912	223	4501	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	22.7	9.3	51.4	0.0	39.6	46.4
Incr Delay (d2), s/veh	22.2	0.0	90.8	0.2	0.1	17.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.7	0.9	5.8	0.1	1.8	8.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.9	9.4	142.2	0.2	39.8	64.3
LnGrp LOS	F	A	F	A	D	E
Approach Vol, veh/h	4139			1692	329	
Approach Delay, s/veh	44.1			20.8	58.9	
Approach LOS	D			C	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	77.9			89.9	28.1	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	63.8			75.8	32.0	
Max Q Clear Time (g_c+I), s	74.6			2.0	22.8	
Green Ext Time (p_c), s	0.0	0.0		39.0	0.4	

Intersection Summary

HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



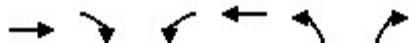
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑			↰ ↑↑↑				↰		↰	↰	
Traffic Volume (veh/h)	15	3862	5	4	1161	99	1	0	1	5	0	5
Future Volume (veh/h)	15	3862	5	4	1161	99	1	0	1	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	0.98		0.97	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	4023	5	4	1209	103	1	0	1	5	0	5
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	25	4147	5	60	4906	416	62	11	28	111	0	55
Arrive On Green	0.03	1.00	1.00	0.03	0.83	0.83	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1781	5141	6	1781	5935	503	463	308	771	1381	0	1545
Grp Volume(v), veh/h	16	2600	1428	4	958	354	2	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	1825	1781	1570	1728	1542	0	0	1381	0	1545
Q Serve(g_s), s	1.0	0.0	0.0	0.3	5.2	5.3	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	1.0	0.0	0.0	0.3	5.2	5.3	0.1	0.0	0.0	0.4	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.29	0.50		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	25	2680	1472	60	3894	1428	101	0	0	111	0	55
V/C Ratio(X)	0.65	0.97	0.97	0.07	0.25	0.25	0.02	0.00	0.00	0.05	0.00	0.09
Avail Cap(c_a), veh/h	80	2680	1472	60	3894	1428	444	0	0	436	0	419
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.97	0.97	0.97	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.1	0.0	0.0	55.2	2.2	2.2	54.9	0.0	0.0	55.0	0.0	55.0
Incr Delay (d2), s/veh	1.0	1.7	3.0	0.2	0.1	0.4	0.0	0.0	0.0	0.1	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 BackOfQ(50%),veh/ln	0.5	0.6	1.2	0.1	0.9	1.1	0.1	0.0	0.0	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	1.7	3.0	55.4	2.4	2.6	54.9	0.0	0.0	55.1	0.0	55.3
LnGrp LOS	E	A	A	E	A	A	D	A	A	E	A	E
Approach Vol, veh/h	4044			1316			2			10		
Approach Delay, s/veh	2.4			2.6			54.9			55.2		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	100.5			9.1	6.0	102.8		9.1				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	5.3	66.1		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	3.0	7.3		2.1				
Green Ext Time (p_c), s	0.0	65.1		0.0	0.0	26.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	2.6
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3836	12	25	1281	0	27
Future Volume (veh/h)	3836	12	25	1281	0	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.93	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3955	12	26	1321	0	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4380	13	33	4515	0	34
Arrive On Green	0.85	0.85	0.02	0.91	0.00	0.02
Sat Flow, veh/h	5294	16	1781	5149	0	1538
Grp Volume(v), veh/h	2560	1407	26	1321	0	29
Grp Sat Flow(s), veh/h/ln	1662	1822	1781	1662	0	1593
Q Serve(g_s), s	65.0	65.7	1.9	4.5	0.0	2.4
Cycle Q Clear(g_c), s	65.0	65.7	1.9	4.5	0.0	2.4
Prop In Lane		0.01	1.00		0.00	0.97
Lane Grp Cap(c), veh/h	2838	1556	33	4515	0	35
V/C Ratio(X)	0.90	0.90	0.79	0.29	0.00	0.83
Avail Cap(c_a), veh/h	2841	1557	59	4592	0	219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.2	6.2	64.8	0.8	0.0	64.6
Incr Delay (d2), s/veh	5.0	8.6	13.9	0.1	0.0	36.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	15.0	1.0	0.1	0.0	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	14.8	78.8	0.9	0.0	101.1
LnGrp LOS	B	B	E	A	A	F
Approach Vol, veh/h	3967			1347	29	
Approach Delay, s/veh	12.4			2.4	101.1	
Approach LOS	B			A	F	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.9	118.5		125.3	7.3	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	113.4			122.2	18.2	
Max Q Clear Time (g_c+13.9), s	67.7			6.5	4.4	
Green Ext Time (p_c), s	0.0	45.6		44.6	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	1010					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	823	0	0	1560	1503
Future Vol, veh/h	0	823	0	0	1560	1503
Conflicting Peds, #/hr	0	0	5	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	876	0	0	1660	1599

Major/Minor	Minor2		Major2	
Conflicting Flow All	2465	1635	-	0
Stage 1	2465	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	52	~ 77	-	-
Stage 1	28	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	51	~ 77	-	-
Mov Cap-2 Maneuver	51	-	-	-
Stage 1	28	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, \$ 4769.2		0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	77	-	-
HCM Lane V/C Ratio	-	11.371	-	-
HCM Control Delay (s)	\$ 4769.2	-	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	103	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	193	822	44	49	871	419	36	44	28	338	45	285
Future Volume (veh/h)	193	822	44	49	871	419	36	44	28	338	45	285
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	197	839	45	50	889	428	37	45	29	345	46	291
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	232	2144	650	64	1663	504	285	412	290	555	699	618
Arrive On Green	0.04	0.14	0.14	0.04	0.33	0.33	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1781	5106	1548	1781	5106	1547	568	1049	737	1316	1777	1572
Grp Volume(v), veh/h	197	839	45	50	889	428	49	0	62	345	46	291
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1547	792	0	1562	1316	1777	1572
Q Serve(g_s), s	11.2	15.3	2.6	2.8	14.5	26.3	2.2	0.0	2.5	22.9	1.6	14.1
Cycle Q Clear(g_c), s	11.2	15.3	2.6	2.8	14.5	26.3	16.3	0.0	2.5	25.4	1.6	14.1
Prop In Lane	1.00		1.00	1.00		1.00	0.75		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	232	2144	650	64	1663	504	373	0	614	555	699	618
V/C Ratio(X)	0.85	0.39	0.07	0.78	0.53	0.85	0.13	0.00	0.10	0.62	0.07	0.47
Avail Cap(c_a), veh/h	325	2144	650	126	1663	504	373	0	614	555	699	618
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	0.86	0.86	0.86	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	32.1	26.6	48.8	28.1	32.1	25.4	0.0	19.6	27.6	19.3	23.1
Incr Delay (d2), s/veh	9.6	0.5	0.2	6.4	1.1	14.3	0.7	0.0	0.3	3.7	0.1	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	7.0	0.9	1.3	5.7	11.2	1.0	0.0	1.0	7.6	0.7	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	32.5	26.8	55.2	29.1	46.4	26.1	0.0	19.9	31.3	19.4	24.7
LnGrp LOS	E	C	C	E	C	D	C	A	B	C	B	C
Approach Vol, veh/h		1081			1367			111			682	
Approach Delay, s/veh		36.8			35.5			22.7			27.7	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	48.9		45.0	17.7	39.3		45.0				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	7.2	* 40		40.1	18.6	27.9		40.1				
Max Q Clear Time (g_c+I1), s	4.8	17.3		27.4	13.2	28.3		18.3				
Green Ext Time (p_c), s	0.0	9.1		5.7	0.1	0.0		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
43: Nimitz Blvd & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	623	0	0	769	445	0	0	0	427	0	64
Future Volume (veh/h)	44	623	0	0	769	445	0	0	0	427	0	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	48	685	0	0	845	0	0	0	0	534	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	62	2468	0	2	2192		0	2	2	670	355	0
Arrive On Green	0.03	0.69	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.19	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3529	1870	0
Grp Volume(v), veh/h	48	685	0	0	845	0	0	0	0	534	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1764	1870	0
Q Serve(g_s), s	2.7	7.4	0.0	0.0	21.0	0.0	0.0	0.0	0.0	14.7	0.0	0.0
Cycle Q Clear(g_c), s	2.7	7.4	0.0	0.0	21.0	0.0	0.0	0.0	0.0	14.7	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	62	2468	0	2	2192		0	2	2	670	355	0
V/C Ratio(X)	0.78	0.28	0.00	0.00	0.39		0.00	0.00	0.00	0.80	0.00	0.00
Avail Cap(c_a), veh/h	176	2468	0	176	2192		0	182	154	1284	680	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.43	0.00	0.00
Uniform Delay (d), s/veh	48.9	5.9	0.0	0.0	23.9	0.0	0.0	0.0	0.0	39.4	0.0	0.0
Incr Delay (d2), s/veh	7.7	0.3	0.0	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	0.0	0.0	9.9	0.0	0.0	0.0	0.0	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.6	6.2	0.0	0.0	24.3	0.0	0.0	0.0	0.0	39.8	0.0	0.0
LnGrp LOS	E	A	A	A	C		A	A	A	D	A	A
Approach Vol, veh/h		733			845	A		0			534	
Approach Delay, s/veh		9.5			24.3			0.0			39.8	
Approach LOS		A			C						D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	76.7		25.3	7.9	68.8		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	10.1	* 25		37.1	10.1	23.8		9.9				
Max Q Clear Time (g_c+I1), s	0.0	9.4		16.7	4.7	23.0		0.0				
Green Ext Time (p_c), s	0.0	8.1		1.0	0.0	0.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

Year 2050 with Project (Alt 4)
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	474	535	255	112	477	238	296	1072	115	270	1214	215
Future Volume (veh/h)	474	535	255	112	477	238	296	1072	115	270	1214	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	494	557	266	117	497	248	308	1117	120	281	1265	224
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	316	650	310	143	638	382	364	1315	141	226	1304	567
Arrive On Green	0.18	0.28	0.28	0.08	0.18	0.18	0.11	0.41	0.41	0.07	0.37	0.37
Sat Flow, veh/h	1781	2311	1101	1781	3554	1548	3456	3233	347	3456	3554	1546
Grp Volume(v), veh/h	494	428	395	117	497	248	308	613	624	281	1265	224
Grp Sat Flow(s),veh/h/ln	1781	1777	1635	1781	1777	1548	1728	1777	1803	1728	1777	1546
Q Serve(g_s), s	20.6	26.5	26.6	7.5	15.5	10.0	10.2	36.3	36.4	7.6	40.6	7.2
Cycle Q Clear(g_c), s	20.6	26.5	26.6	7.5	15.5	10.0	10.2	36.3	36.4	7.6	40.6	7.2
Prop In Lane	1.00		0.67	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	316	500	460	143	638	382	364	723	733	226	1304	567
V/C Ratio(X)	1.56	0.86	0.86	0.82	0.78	0.65	0.85	0.85	0.85	1.24	0.97	0.39
Avail Cap(c_a), veh/h	316	587	540	169	888	491	405	723	733	226	1304	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	39.5	39.5	52.5	45.4	17.5	51.0	31.2	31.2	54.2	36.1	9.0
Incr Delay (d2), s/veh	267.7	9.4	10.4	19.4	1.8	0.7	12.9	11.9	11.9	140.2	18.7	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.7	11.9	4.1	7.0	3.5	5.0	17.6	17.9	7.7	20.6	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	315.4	48.9	49.9	71.9	47.2	18.3	63.9	43.1	43.1	194.4	54.8	11.1
LnGrp LOS	F	D	D	E	D	B	E	D	D	F	D	B
Approach Vol, veh/h	1317			862			1545			1770		
Approach Delay, s/veh	149.1			42.2			47.2			71.4		
Approach LOS	F			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.0	52.5	13.7	37.8	16.6	47.9	25.8	25.7				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	7.6	* 40	11.0	38.3	13.6	33.8	20.6	* 29				
Max Q Clear Time (g_c+1/6), s	19.6	38.4	9.5	28.6	12.2	42.6	22.6	17.5				
Green Ext Time (p_c), s	0.0	0.8	0.0	1.6	0.0	0.0	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay	78.7
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
User approved changes to right turn type.

1: Pacific Hwy & Rosecrans St/Taylor St

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	1153	239	499	509	155	270	274	1158	252	363	137
Future Volume (veh/h)	116	1153	239	499	509	155	270	274	1158	252	363	137
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.89	1.00		0.79
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	1240	257	537	547	167	290	295	1245	271	390	147
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	147	1127	632	588	757	622	166	923	637	166	923	327
Arrive On Green	0.08	0.32	0.32	0.17	0.40	0.40	0.09	0.26	0.26	0.09	0.26	0.26
Sat Flow, veh/h	1781	3554	1527	3456	1870	1536	1781	3554	1413	1781	3554	1259
Grp Volume(v), veh/h	125	1240	257	537	547	167	290	295	1245	271	390	147
Grp Sat Flow(s),veh/h/ln	1781	1777	1527	1728	1870	1536	1781	1777	1413	1781	1777	1259
Q Serve(g_s), s	10.1	46.4	17.5	22.3	36.0	10.6	13.6	9.8	38.0	13.6	13.3	14.3
Cycle Q Clear(g_c), s	10.1	46.4	17.5	22.3	36.0	10.6	13.6	9.8	38.0	13.6	13.3	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	147	1127	632	588	757	622	166	923	637	166	923	327
V/C Ratio(X)	0.85	1.10	0.41	0.91	0.72	0.27	1.75	0.32	1.96	1.64	0.42	0.45
Avail Cap(c_a), veh/h	174	1127	632	676	776	638	166	923	637	166	923	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.2	49.9	30.6	59.6	36.6	29.1	66.3	43.7	42.6	66.3	45.0	45.4
Incr Delay (d2), s/veh	24.4	58.5	0.5	14.7	2.9	0.1	361.7	0.2	435.7	312.0	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 BackOfQ(50%),veh/ln	5.6	29.7	6.6	11.0	17.1	4.0	22.8	4.4	99.8	20.6	6.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.6	108.5	31.1	74.3	39.5	29.2	428.0	43.9	478.3	378.3	45.1	45.7
LnGrp LOS	F	F	C	E	D	C	F	D	F	F	D	D
Approach Vol, veh/h		1622			1251			1830			808	
Approach Delay, s/veh		94.8			53.1			400.3			157.0	
Approach LOS		F			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	30.3	52.3	19.0	44.7	17.5	65.1	19.0	44.7				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	28.6	46.4	13.6	38.0	14.3	60.7	13.6	38.0				
Max Q Clear Time (g_c+l1), s	24.3	48.4	15.6	16.3	12.1	38.0	15.6	40.0				
Green Ext Time (p_c), s	0.5	0.0	0.0	2.1	0.0	3.0	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			195.9									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	354	0	6	6	0	157	2	933	6	90	799	62
Future Volume (veh/h)	354	0	6	6	0	157	2	933	6	90	799	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	402	0	7	7	0	178	2	1060	7	102	908	70
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	582	0	8	790	0	733	4	1522	10	131	1750	135
Arrive On Green	0.40	0.00	0.40	0.40	0.00	0.40	0.00	0.29	0.29	0.07	0.36	0.36
Sat Flow, veh/h	1169	0	20	1686	0	1541	1781	5233	35	1781	4832	371
Grp Volume(v), veh/h	409	0	0	7	0	178	2	689	378	102	639	339
Grp Sat Flow(s), veh/h/ln	1189	0	0	1686	0	1541	1781	1702	1864	1781	1702	1799
Q Serve(g_s), s	19.5	0.0	0.0	0.0	0.0	4.3	0.1	11.2	11.2	3.5	9.2	9.2
Cycle Q Clear(g_c), s	19.7	0.0	0.0	0.1	0.0	4.3	0.1	11.2	11.2	3.5	9.2	9.2
Prop In Lane	0.98		0.02	1.00		1.00	1.00		0.02	1.00		0.21
Lane Grp Cap(c), veh/h	590	0	0	790	0	733	4	990	542	131	1233	652
V/C Ratio(X)	0.69	0.00	0.00	0.01	0.00	0.24	0.51	0.70	0.70	0.78	0.52	0.52
Avail Cap(c_a), veh/h	725	0	0	947	0	906	114	1134	621	217	1325	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	0.0	11.3	0.0	9.8	31.1	19.7	19.7	28.4	15.6	15.6
Incr Delay (d2), s/veh	1.4	0.0	0.0	0.0	0.0	0.1	34.0	1.8	3.3	3.7	0.4	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.9	0.0	0.0	0.1	0.0	1.3	0.1	4.3	5.0	1.6	3.3	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.6	0.0	0.0	11.3	0.0	9.8	65.1	21.5	23.0	32.2	16.0	16.4
LnGrp LOS	B	A	A	B	A	A	E	C	C	C	B	B
Approach Vol, veh/h		409			185			1069			1080	
Approach Delay, s/veh		18.6			9.9			22.1			17.7	
Approach LOS		B			A			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.6			29.9	4.5	28.0		29.9				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	7.6	* 21		32.0	4.0	24.3		32.0				
Max Q Clear Time (g_c+1/5), s	13.2			21.7	2.1	11.2		6.3				
Green Ext Time (p_c), s	0.0	4.7		1.5	0.0	5.9		0.3				

Intersection Summary

HCM 6th Ctrl Delay 19.0

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	27	825	855	45	66	688	892	94	14	1610	22
Future Volume (veh/h)	65	27	825	855	45	66	688	892	94	14	1610	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.91	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	28	868	900	47	69	724	939	99	15	1695	23
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	398	293	312	630	484	264	1560	679	22	1114	15
Arrive On Green	0.05	0.21	0.21	0.18	0.34	0.34	0.15	0.44	0.44	0.01	0.31	0.31
Sat Flow, veh/h	1781	1870	1375	1781	1870	1435	1781	3554	1547	1781	3590	49
Grp Volume(v), veh/h	68	28	868	900	47	69	724	939	99	15	838	880
Grp Sat Flow(s),veh/h/ln	1781	1870	1375	1781	1870	1435	1781	1777	1547	1781	1777	1861
Q Serve(g_s), s	5.5	1.7	31.1	25.6	2.5	4.9	21.6	29.4	5.6	1.2	45.3	45.3
Cycle Q Clear(g_c), s	5.5	1.7	31.1	25.6	2.5	4.9	21.6	29.4	5.6	1.2	45.3	45.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	92	398	293	312	630	484	264	1560	679	22	551	578
V/C Ratio(X)	0.74	0.07	2.96	2.88	0.07	0.14	2.75	0.60	0.15	0.67	1.52	1.52
Avail Cap(c_a), veh/h	117	398	293	312	630	484	264	1560	679	144	551	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	45.9	57.5	60.2	32.9	33.7	62.2	31.2	24.6	71.8	50.3	50.4
Incr Delay (d2), s/veh	11.7	0.0	892.6	855.4	0.0	0.0	796.9	0.7	0.1	12.4	243.1	244.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.8	83.4	85.8	1.2	1.7	68.1	12.8	2.1	0.6	57.3	60.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	45.9	950.0	915.6	32.9	33.8	859.1	32.0	24.7	84.2	293.4	294.9
LnGrp LOS	F	D	F	F	C	C	F	C	C	F	F	F
Approach Vol, veh/h	964			1016			1762			1733		
Approach Delay, s/veh	862.4			814.9			371.4			292.4		
Approach LOS	F			F			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	72.8	30.0	36.0	26.0	54.0	11.9	54.1					
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	1.8	53.1	25.6	31.1	21.6	* 45	9.6	47.1				
Max Q Clear Time (g_c+13.2), s	13.2	31.4	27.6	33.1	23.6	47.3	7.5	6.9				
Green Ext Time (p_c), s	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay 515.1

HCM 6th LOS F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	597	108	245	133	0	0	0	0	498	151	93
Future Volume (veh/h)	0	597	108	245	133	0	0	0	0	498	151	93
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	642	116	263	143	0				348	423	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	421	840	372	280	536	0				531	557	847
Arrive On Green	0.00	0.24	0.24	0.16	0.16	0.00				0.30	0.30	0.30
Sat Flow, veh/h	1781	3554	1572	1781	3572	0				1781	1870	1583
Grp Volume(v), veh/h	0	642	116	263	143	0				348	423	100
Grp Sat Flow(s), veh/h/ln	1781	1777	1572	1781	1702	0				1781	1870	1583
Q Serve(g_s), s	0.0	7.9	2.9	6.9	1.7	0.0				8.0	9.7	1.5
Cycle Q Clear(g_c), s	0.0	7.9	2.9	6.9	1.7	0.0				8.0	9.7	1.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	421	840	372	280	536	0				531	557	847
V/C Ratio(X)	0.00	0.76	0.31	0.94	0.27	0.00				0.66	0.76	0.12
Avail Cap(c_a), veh/h	530	1058	468	280	536	0				1102	1157	1354
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	16.7	14.8	19.6	17.4	0.0				14.4	15.0	5.4
Incr Delay (d2), s/veh	0.0	1.9	0.2	37.7	0.3	0.0				0.5	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 BackOfQ(50%), veh/ln	0.0	2.7	0.8	5.2	0.6	0.0				2.8	3.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	18.6	15.0	57.3	17.7	0.0				14.9	15.8	5.5
LnGrp LOS	A	B	B	E	B	A				B	B	A
Approach Vol, veh/h	758			406			871					
Approach Delay, s/veh	18.1			43.3			14.3					
Approach LOS	B			D			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	15.1			20.2			11.7					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	14.0			29.1			7.4					
Max Q Clear Time (g_c+I1), s	9.9			11.7			8.9					
Green Ext Time (p_c), s	1.2			2.3			0.0					

Intersection Summary

HCM 6th Ctrl Delay 21.5

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	354	1209	0	0	564	82	155	17	194	5	0	315
Future Volume (veh/h)	354	1209	0	0	564	82	155	17	194	5	0	315
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	389	1329	0	0	620	90	170	19	213	5	0	346
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	395	1963	0	0	841	122	335	25	275	1	0	91
Arrive On Green	0.22	0.55	0.00	0.00	0.27	0.27	0.19	0.19	0.19	0.06	0.00	0.06
Sat Flow, veh/h	1781	3647	0	0	3208	451	1781	130	1463	22	0	1503
Grp Volume(v), veh/h	389	1329	0	0	353	357	170	0	232	351	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1789	1781	0	1593	1525	0	0
Q Serve(g_s), s	16.2	19.9	0.0	0.0	13.5	13.5	6.4	0.0	10.3	4.5	0.0	0.0
Cycle Q Clear(g_c), s	16.2	19.9	0.0	0.0	13.5	13.5	6.4	0.0	10.3	4.5	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.25	1.00		0.92	0.01		0.99
Lane Grp Cap(c), veh/h	395	1963	0	0	480	483	335	0	299	92	0	0
V/C Ratio(X)	0.98	0.68	0.00	0.00	0.74	0.74	0.51	0.00	0.77	3.80	0.00	0.00
Avail Cap(c_a), veh/h	395	2634	0	0	806	811	623	0	557	92	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.8	11.9	0.0	0.0	24.7	24.7	27.1	0.0	28.7	34.9	0.0	0.0
Incr Delay (d2), s/veh	40.9	0.2	0.0	0.0	2.7	2.7	0.4	0.0	1.6	1286.7	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 BackOfQ(50%),veh/ft	0.7	6.1	0.0	0.0	5.4	5.5	2.6	0.0	3.9	34.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	12.1	0.0	0.0	27.4	27.4	27.5	0.0	30.3	1321.6	0.0	0.0
LnGrp LOS	E	B	A	A	C	C	C	A	C	F	A	A
Approach Vol, veh/h	1718				710				402		351	
Approach Delay, s/veh	25.1				27.4				29.1		1321.6	
Approach LOS	C				C				C		F	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	45.5		8.5		21.0	24.5	20.4					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 55		4.5		16.5	33.7	26.0					
Max Q Clear Time (g_c+I1), s	21.9		6.5		18.2	15.5	12.3					
Green Ext Time (p_c), s	7.0		0.0		0.0	4.5	1.0					

Intersection Summary

HCM 6th Ctrl Delay	169.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	928	256	265	419	0	0	0	0	1374	813	339
Future Volume (veh/h)	0	928	256	265	419	0	0	0	0	1374	813	339
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	977	269	279	441	0				1446	856	357
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1083	470	292	1570	0				1573	826	697
Arrive On Green	0.00	0.30	0.30	0.03	0.15	0.00				0.44	0.44	0.44
Sat Flow, veh/h	0	3647	1541	3456	3647	0				3563	1870	1579
Grp Volume(v), veh/h	0	977	269	279	441	0				1446	856	357
Grp Sat Flow(s),veh/h/ln	0	1777	1541	1728	1777	0				1781	1870	1579
Q Serve(g_s), s	0.0	22.1	12.3	6.8	9.3	0.0				32.0	37.1	13.7
Cycle Q Clear(g_c), s	0.0	22.1	12.3	6.8	9.3	0.0				32.0	37.1	13.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1083	470	292	1570	0				1573	826	697
V/C Ratio(X)	0.00	0.90	0.57	0.96	0.28	0.00				0.92	1.04	0.51
Avail Cap(c_a), veh/h	0	1083	470	292	1570	0				1573	826	697
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.71	0.71	0.95	0.95	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.0	24.6	40.7	24.0	0.0				22.0	23.4	16.9
Incr Delay (d2), s/veh	0.0	9.0	3.6	39.0	0.4	0.0				8.9	41.1	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
%ile BackOfQ(50%),veh/ln	0.0	9.9	4.6	4.5	4.0	0.0				14.3	24.4	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	37.0	28.2	79.7	24.4	0.0				30.9	64.5	17.2
LnGrp LOS	A	D	C	E	C	A				C	F	B
Approach Vol, veh/h		1246			720						2659	
Approach Delay, s/veh		35.1			45.8						39.9	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	1.5	30.5		42.0		42.0						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	25.6			37.1		37.1						
Max Q Clear Time (g_c+I), s	24.1			39.1		11.3						
Green Ext Time (p_c), s	0.0	1.1		0.0		3.0						

Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
7: San Diego Ave & Washington St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	204	2104	0	0	617	1413	73	266	408	0	0	0
Future Volume (veh/h)	204	2104	0	0	617	1413	73	266	408	0	0	0
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		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	215	2215	0	0	649	1487	77	280	429			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	233	2058	0	0	1612	719	221	854	472			
Arrive On Green	0.09	0.77	0.00	0.00	0.45	0.45	0.30	0.30	0.30			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	728	2808	1551			
Grp Volume(v), veh/h	215	2215	0	0	649	1487	194	163	429			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1834	1702	1551			
Q Serve(g_s), s	5.2	48.7	0.0	0.0	10.3	38.1	6.9	6.2	22.3			
Cycle Q Clear(g_c), s	5.2	48.7	0.0	0.0	10.3	38.1	6.9	6.2	22.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.40		1.00			
Lane Grp Cap(c), veh/h	233	2058	0	0	1612	719	558	518	472			
V/C Ratio(X)	0.92	1.08	0.00	0.00	0.40	2.07	0.35	0.32	0.91			
Avail Cap(c_a), veh/h	233	2058	0	0	1612	719	598	555	506			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.15	0.15	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	38.0	9.6	0.0	0.0	15.3	23.0	22.7	22.5	28.1			
Incr Delay (d2), s/veh	9.7	36.0	0.0	0.0	0.8	485.6	0.1	0.1	18.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	15.4	0.0	0.0	3.8	109.0	2.9	2.4	10.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	45.7	0.0	0.0	16.1	508.5	22.9	22.6	47.0			
LnGrp LOS	D	F	A	A	B	F	C	C	D			
Approach Vol, veh/h	2430			2136			786					
Approach Delay, s/veh	45.8			358.9			36.0					
Approach LOS	D			F			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	53.6			10.6			43.0			30.4		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.8			4.3			* 38			27.4		
Max Q Clear Time (g_c+I1), s	50.7			7.2			40.1			24.3		
Green Ext Time (p_c), s	0.0			0.0			0.0			1.1		

Intersection Summary

HCM 6th Ctrl Delay	169.3
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↶		↶↶↶					
Traffic Volume (veh/h)	0	0	0	0	26	175	9	2050	42	0	0	0
Future Volume (veh/h)	0	0	0	0	26	175	9	2050	42	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	27	184	9	2158	44			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	35	237	78	3014	61			
Arrive On Green				0.00	0.17	0.17	0.60	0.60	0.60			
Sat Flow, veh/h				0	207	1410	5	4993	101			
Grp Volume(v), veh/h				0	0	211	810	671	731			
Grp Sat Flow(s),veh/h/ln				0	0	1617	1869	1549	1682			
Q Serve(g_s), s				0.0	0.0	6.1	0.0	14.7	14.8			
Cycle Q Clear(g_c), s				0.0	0.0	6.1	14.7	14.7	14.8			
Prop In Lane				0.00		0.87	0.01		0.06			
Lane Grp Cap(c), veh/h				0	0	272	1203	935	1015			
V/C Ratio(X)				0.00	0.00	0.78	0.67	0.72	0.72			
Avail Cap(c_a), veh/h				0	0	608	1249	973	1057			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	19.4	6.7	6.7	6.8			
Incr Delay (d2), s/veh				0.0	0.0	1.8	1.6	2.8	2.6			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	2.2	4.1	3.7	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	21.2	8.3	9.5	9.3			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					211			2211				
Approach Delay, s/veh					21.2			9.0				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		35.0						13.7				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		30.6						18.3				
Max Q Clear Time (g_c+I1), s		16.8						8.1				
Green Ext Time (p_c), s		12.6						0.6				
Intersection Summary												
HCM 6th Ctrl Delay				10.1								
HCM 6th LOS				B								

9: Pacific Hwy & W Admiral Boland Wy/Sassafrass St

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	268	91	352	413	153	167	549	86	274	1268	87
Future Volume (veh/h)	142	268	91	352	413	153	167	549	86	274	1268	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	285	97	374	439	163	178	584	91	291	1349	93
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	447	378	381	464	172	190	984	151	316	1422	98
Arrive On Green	0.10	0.24	0.24	0.21	0.36	0.36	0.11	0.22	0.22	0.18	0.29	0.29
Sat Flow, veh/h	1781	1870	1581	1781	1300	483	1781	4460	684	1781	4875	336
Grp Volume(v), veh/h	151	285	97	374	0	602	178	444	231	291	942	500
Grp Sat Flow(s),veh/h/ln	1781	1870	1581	1781	0	1783	1781	1702	1740	1781	1702	1807
Q Serve(g_s), s	10.7	17.4	6.3	26.6	0.0	41.8	12.6	14.9	15.2	20.4	34.5	34.5
Cycle Q Clear(g_c), s	10.7	17.4	6.3	26.6	0.0	41.8	12.6	14.9	15.2	20.4	34.5	34.5
Prop In Lane	1.00		1.00	1.00		0.27	1.00		0.39	1.00		0.19
Lane Grp Cap(c), veh/h	171	447	378	381	0	636	190	751	384	316	993	527
V/C Ratio(X)	0.88	0.64	0.26	0.98	0.00	0.95	0.94	0.59	0.60	0.92	0.95	0.95
Avail Cap(c_a), veh/h	171	485	410	381	0	672	190	751	384	369	994	528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	56.9	43.5	39.3	49.8	0.0	39.8	56.4	44.5	44.6	51.5	44.2	44.2
Incr Delay (d2), s/veh	37.2	1.7	0.1	41.3	0.0	22.0	46.5	1.7	3.7	23.9	17.8	27.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	8.4	2.5	16.3	0.0	22.2	8.1	6.4	6.9	11.1	16.7	19.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	94.0	45.2	39.4	91.2	0.0	61.8	102.9	46.2	48.3	75.3	61.9	71.4
LnGrp LOS	F	D	D	F	A	E	F	D	D	E	E	E
Approach Vol, veh/h	533		976			853			1733			
Approach Delay, s/veh	58.0		73.1			58.6			66.9			
Approach LOS	E		E			E			E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	37.0	33.4	31.6	35.3	18.0	42.4	16.6	50.3				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	26.4	24.4	27.2	33.0	13.6	37.2	12.2	48.0				
Max Q Clear Time (g_c+2.4), s	22.4	17.2	28.6	19.4	14.6	36.5	12.7	43.8				
Green Ext Time (p_c), s	0.2	3.5	0.0	1.1	0.0	0.6	0.0	1.6				

Intersection Summary

HCM 6th Ctrl Delay 65.5

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

Year 2050 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖					↖	↑↑↑	↗
Traffic Volume (veh/h)	0	335	420	120	300	0	0	0	0	298	2650	490
Future Volume (veh/h)	0	335	420	120	300	0	0	0	0	298	2650	490
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	360	452	129	323	0				320	2849	527
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	506	428	109	461	0				1133	2783	485
Arrive On Green	0.00	0.27	0.27	0.27	0.27	0.00				0.64	0.64	0.64
Sat Flow, veh/h	0	1870	1582	219	1787	0				1781	4374	763
Grp Volume(v), veh/h	0	360	452	164	288	0				320	2179	1197
Grp Sat Flow(s),veh/h/ln	0	1870	1582	304	1617	0				1781	1702	1733
Q Serve(g_s), s	0.0	22.6	35.2	12.6	20.5	0.0				10.4	82.7	82.7
Cycle Q Clear(g_c), s	0.0	22.6	35.2	35.2	20.5	0.0				10.4	82.7	82.7
Prop In Lane	0.00		1.00	0.79		0.00				1.00		0.44
Lane Grp Cap(c), veh/h	0	506	428	132	438	0				1133	2166	1102
V/C Ratio(X)	0.00	0.71	1.06	1.25	0.66	0.00				0.28	1.01	1.09
Avail Cap(c_a), veh/h	0	506	428	132	438	0				1133	2166	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	42.8	47.4	59.6	42.0	0.0				10.5	23.7	23.7
Incr Delay (d2), s/veh	0.0	4.0	58.9	159.3	3.3	0.0				0.2	20.8	53.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.1	20.9	10.2	8.7	0.0				4.1	36.8	47.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.8	106.3	218.9	45.3	0.0				10.7	44.5	77.3
LnGrp LOS	A	D	F	F	D	A				B	F	F
Approach Vol, veh/h		812			452						3696	
Approach Delay, s/veh		79.9			108.4						52.2	
Approach LOS		E			F						D	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				41.0		89.0		41.0				
Change Period (Y+Rc), s				5.8		6.3		5.8				
Max Green Setting (Gmax), s				35.2		82.7		35.2				
Max Q Clear Time (g_c+I1), s				37.2		84.7		37.2				
Green Ext Time (p_c), s				0.0		0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			61.8									
HCM 6th LOS			E									

SDCRAA ADP EIR
11: India St & Sassafras St/Sassafras St

Year 2050 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗		↖		↖	↑↑				
Traffic Volume (veh/h)	199	97	341	0	44	20	385	1731	98	0	0	0
Future Volume (veh/h)	199	97	341	0	44	20	385	1731	98	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	209	102	359	0	46	21	405	1822	103			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	315	117	1362	0	328	150	1054	2022	113			
Arrive On Green	0.27	0.27	0.27	0.00	0.27	0.27	0.59	0.59	0.59			
Sat Flow, veh/h	884	432	1570	0	1216	555	1781	3419	191			
Grp Volume(v), veh/h	311	0	359	0	0	67	405	938	987			
Grp Sat Flow(s),veh/h/ln	1316	0	1570	0	0	1770	1781	1777	1833			
Q Serve(g_s), s	16.0	0.0	0.0	0.0	0.0	2.3	9.5	36.0	37.5			
Cycle Q Clear(g_c), s	18.2	0.0	0.0	0.0	0.0	2.3	9.5	36.0	37.5			
Prop In Lane	0.67		1.00	0.00		0.31	1.00		0.10			
Lane Grp Cap(c), veh/h	432	0	1362	0	0	478	1054	1051	1085			
V/C Ratio(X)	0.72	0.00	0.26	0.00	0.00	0.14	0.38	0.89	0.91			
Avail Cap(c_a), veh/h	466	0	1398	0	0	486	1075	1072	1106			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	28.7	0.0	1.0	0.0	0.0	21.8	8.5	13.9	14.2			
Incr Delay (d2), s/veh	4.9	0.0	0.1	0.0	0.0	0.0	0.2	9.6	11.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.0	0.0	0.0	0.9	3.2	14.8	16.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	1.1	0.0	0.0	21.8	8.7	23.5	25.2			
LnGrp LOS	C	A	A	A	A	C	A	C	C			
Approach Vol, veh/h	670				67		2330					
Approach Delay, s/veh	16.2				21.8		21.6					
Approach LOS	B				C		C					
Timer - Assigned Phs	2		4				8					
Phs Duration (G+Y+Rc), s	51.1		27.7				27.7					
Change Period (Y+Rc), s	4.5		* 6.4				6.4					
Max Green Setting (Gmax), s	47.5		* 23				21.6					
Max Q Clear Time (g_c+I1), s	39.5		20.2				4.3					
Green Ext Time (p_c), s	7.1		1.0				0.2					
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
HCM 6th LOS			C									

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	72	53	157	5	21	28	639	591	369	1658	17
Future Volume (veh/h)	37	72	53	157	5	21	28	639	591	369	1658	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No				No				No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	84	62	183	6	24	33	743	687	429	1928	20
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	469	273	202	368	89	356	49	1729	532	538	2431	25
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.03	0.34	0.34	0.16	0.47	0.47
Sat Flow, veh/h	1368	996	735	1234	325	1298	1781	5106	1572	3456	5210	54
Grp Volume(v), veh/h	43	0	146	183	0	30	33	743	687	429	1259	689
Grp Sat Flow(s),veh/h/ln	1368	0	1730	1234	0	1623	1781	1702	1572	1728	1702	1860
Q Serve(g_s), s	1.5	0.0	4.3	8.9	0.0	0.9	1.2	7.3	21.8	7.7	20.2	20.2
Cycle Q Clear(g_c), s	2.4	0.0	4.3	13.2	0.0	0.9	1.2	7.3	21.8	7.7	20.2	20.2
Prop In Lane	1.00		0.42	1.00		0.80	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	469	0	475	368	0	445	49	1729	532	538	1588	868
V/C Ratio(X)	0.09	0.00	0.31	0.50	0.00	0.07	0.67	0.43	1.29	0.80	0.79	0.79
Avail Cap(c_a), veh/h	769	0	855	623	0	781	113	1729	532	698	1588	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	18.5	23.7	0.0	17.3	31.0	16.5	21.3	26.2	14.5	14.5
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	5.7	0.3	144.4	3.7	2.8	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 BackOfQ(50%),veh/ln	0.5	0.0	1.7	2.5	0.0	0.3	0.6	2.6	28.4	3.2	7.1	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	18.7	24.1	0.0	17.3	36.7	16.8	165.7	29.9	17.4	19.7
LnGrp LOS	B	A	B	C	A	B	D	B	F	C	B	B
Approach Vol, veh/h	189		213			1463			2377			
Approach Delay, s/veh	18.5		23.2			87.2			20.3			
Approach LOS	B		C			F			C			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	4.4	27.5	22.5		6.2	35.7	22.5					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	13.0	* 22	* 32		4.1	30.0	* 31					
Max Q Clear Time (g_c+1.9, s)	19.7	23.8	6.3		3.2	22.2	15.2					
Green Ext Time (p_c), s	0.3	0.0	0.6		0.0	6.3	0.4					

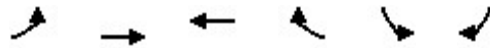
Intersection Summary

HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑↓			↑↑↑↑		↗
Traffic Vol, veh/h	5656	12	0	2378	0	1
Future Vol, veh/h	5656	12	0	2378	0	1
Conflicting Peds, #/hr	0	1	1	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	98	98	98	98	98	98
Heavy Vehicles, %	5	2	2	5	2	2
Mvmt Flow	5771	12	0	2427	0	1
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	-	-	-	2893
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	-	-	0	-	0	10
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	10
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	0		\$ 402.4		
HCM LOS	F					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	10	-	-	-		
HCM Lane V/C Ratio	0.102	-	-	-		
HCM Control Delay (s)	\$ 402.4	-	-	-		
HCM Lane LOS	F	-	-	-		
HCM 95th %tile Q(veh)	0.3	-	-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑↑	↑↑↑	↔	↔	↔
Traffic Volume (veh/h)	1863	3459	2878	40	68	74
Future Volume (veh/h)	1863	3459	2878	40	68	74
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1941	3603	2998	0	71	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	925	4213	2693		117	104
Arrive On Green	0.27	0.85	0.54	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1941	3603	2998	0	71	77
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	31.6	47.6	63.7	0.0	4.6	5.6
Cycle Q Clear(g_c), s	31.6	47.6	63.7	0.0	4.6	5.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	925	4213	2693		117	104
V/C Ratio(X)	2.10	0.86	1.11		0.61	0.74
Avail Cap(c_a), veh/h	925	4213	2693		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.30	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	5.1	27.1	0.0	53.6	54.1
Incr Delay (d2), s/veh	497.5	2.4	52.9	0.0	1.9	3.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	76.9	7.5	35.7	0.0	2.1	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	540.7	7.5	80.1	0.0	55.5	57.9
LnGrp LOS	F	A	F		E	E
Approach Vol, veh/h		5544	2998	A	148	
Approach Delay, s/veh		194.2	80.1		56.8	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.0		13.0	36.0	69.0
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	31.6	* 42
Max Q Clear Time (g_c+l1), s		49.6		7.6	33.6	65.7
Green Ext Time (p_c), s		27.8		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			152.5			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	483	1718	159	111	977	114	159	434	153	202	1091	875
Future Volume (veh/h)	483	1718	159	111	977	114	159	434	153	202	1091	875
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	562	1998	185	129	1136	133	185	505	178	235	1269	1017
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	466	1687	154	722	2123	248	135	570	194	247	1096	751
Arrive On Green	0.26	0.51	0.51	0.13	0.22	0.22	0.08	0.15	0.15	0.14	0.21	0.21
Sat Flow, veh/h	1781	3289	299	1781	3205	375	1781	3752	1278	1781	5106	1567
Grp Volume(v), veh/h	562	1064	1119	129	629	640	185	457	226	235	1269	1017
Grp Sat Flow(s),veh/h/ln	1781	1777	1811	1781	1777	1803	1781	1702	1625	1781	1702	1567
Q Serve(g_s), s	36.6	71.8	71.8	9.0	43.8	44.0	10.6	18.4	19.2	18.3	30.1	30.1
Cycle Q Clear(g_c), s	36.6	71.8	71.8	9.0	43.8	44.0	10.6	18.4	19.2	18.3	30.1	30.1
Prop In Lane	1.00		0.17	1.00		0.21	1.00		0.79	1.00		1.00
Lane Grp Cap(c), veh/h	466	911	929	722	1177	1194	135	517	247	247	1096	751
V/C Ratio(X)	1.21	1.17	1.21	0.18	0.53	0.54	1.37	0.88	0.92	0.95	1.16	1.35
Avail Cap(c_a), veh/h	466	911	929	722	1177	1194	135	518	247	247	1096	751
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.65	0.65	0.65	0.96	0.96	0.96	0.63	0.63	0.63
Uniform Delay (d), s/veh	51.7	34.1	34.1	40.0	35.6	35.7	64.7	58.2	58.5	59.8	55.0	36.8
Incr Delay (d2), s/veh	111.8	87.1	102.5	0.4	1.1	1.1	205.7	15.9	34.9	32.9	77.8	165.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	51.2	56.2	4.2	21.2	21.6	12.5	9.0	10.3	10.5	20.7	58.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	163.5	121.2	136.6	40.3	36.7	36.8	270.4	74.1	93.5	92.8	132.8	201.9
LnGrp LOS	F	F	F	D	D	D	F	E	F	F	F	F
Approach Vol, veh/h	2745			1398			868			2521		
Approach Delay, s/veh	136.2			37.1			121.0			157.0		
Approach LOS	F			D			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.8	26.3	64.0	77.0	15.0	35.1	41.0	100.0				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.4	* 21	8.6	* 72	10.6	30.0	36.6	43.2				
Max Q Clear Time (g_c+20), s	20.3	21.2	11.0	73.8	12.6	32.1	38.6	46.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	123.0
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	1799	231	91	230	0	0	0	0	517	1561	974
Future Volume (veh/h)	0	1799	231	91	230	0	0	0	0	517	1561	974
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1914	246	97	245	0				550	1731	990
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1782	224	121	2348	0				497	1746	636
Arrive On Green	0.00	0.38	0.38	0.07	0.66	0.00				0.40	0.40	0.40
Sat Flow, veh/h	0	3268	399	1781	3647	0				1230	4320	1572
Grp Volume(v), veh/h	0	1052	1108	97	245	0				809	1472	990
Grp Sat Flow(s),veh/h/ln	0	1777	1797	1781	1777	0				1809	1870	1572
Q Serve(g_s), s	0.0	78.6	78.6	7.5	3.5	0.0				56.6	54.1	56.6
Cycle Q Clear(g_c), s	0.0	78.6	78.6	7.5	3.5	0.0				56.6	54.1	56.6
Prop In Lane	0.00		0.22	1.00		0.00				0.68		1.00
Lane Grp Cap(c), veh/h	0	997	1009	121	2348	0				731	1512	636
V/C Ratio(X)	0.00	1.06	1.10	0.80	0.10	0.00				1.11	0.97	1.56
Avail Cap(c_a), veh/h	0	997	1009	135	2348	0				731	1512	636
HCM Platoon Ratio	1.00	0.67	0.67	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.41	0.41	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	43.7	43.7	64.3	8.7	0.0				41.7	41.0	41.7
Incr Delay (d2), s/veh	0.0	27.6	45.8	10.6	0.0	0.0				66.2	17.6	258.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	42.9	48.5	3.7	1.3	0.0				38.6	28.6	67.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	71.3	89.5	74.9	8.7	0.0				107.9	58.6	300.3
LnGrp LOS	A	F	F	E	A	A				F	E	F
Approach Vol, veh/h		2160			342						3271	
Approach Delay, s/veh		80.6			27.5						143.9	
Approach LOS		F			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.9	85.8		62.0		99.7						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	10.6	* 58		56.6		71.4						
Max Q Clear Time (g_c+I), s	19.5	80.6		58.6		5.5						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	113.3
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
17: India St/I-5 NB Ramp & W Laurel St

Year 2050 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↑			↑↑	↰			
Traffic Volume (veh/h)	954	1576	0	0	281	418	24	248	217	0	0	0
Future Volume (veh/h)	954	1576	0	0	281	418	24	248	217	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	1026	1695	0	0	302	449	26	267	233			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1519	1459	0	0	543	484	46	499	219			
Arrive On Green	0.88	1.00	0.00	0.00	0.31	0.31	0.15	0.15	0.15			
Sat Flow, veh/h	3456	1870	0	0	1870	1585	308	3324	1463			
Grp Volume(v), veh/h	1026	1695	0	0	302	449	157	136	233			
Grp Sat Flow(s),veh/h/ln	1728	1870	0	0	1777	1585	1855	1777	1463			
Q Serve(g_s), s	12.4	109.2	0.0	0.0	19.9	38.4	11.0	9.9	21.0			
Cycle Q Clear(g_c), s	12.4	109.2	0.0	0.0	19.9	38.4	11.0	9.9	21.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.17		1.00			
Lane Grp Cap(c), veh/h	1519	1459	0	0	543	484	278	267	219			
V/C Ratio(X)	0.68	1.16	0.00	0.00	0.56	0.93	0.56	0.51	1.06			
Avail Cap(c_a), veh/h	1519	1459	0	0	643	574	278	267	219			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	0.71	0.71	0.71			
Uniform Delay (d), s/veh	5.5	0.0	0.0	0.0	40.7	47.1	55.2	54.8	59.5			
Incr Delay (d2), s/veh	0.1	73.6	0.0	0.0	0.3	18.2	1.2	0.5	68.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	29.8	0.0	0.0	8.7	17.3	5.3	4.5	12.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	73.6	0.0	0.0	41.0	65.4	56.4	55.3	127.9			
LnGrp LOS	A	F	A	A	D	E	E	E	F			
Approach Vol, veh/h	2721				751		526					
Approach Delay, s/veh	48.0				55.6		87.8					
Approach LOS	D				E		F					
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	114.1				66.4		47.7		25.9			
Change Period (Y+Rc), s	4.9				4.9		* 4.9		4.9			
Max Green Setting (Gmax), s	109.2				54.1		* 51		21.0			
Max Q Clear Time (g_c+I1), s	111.2				14.4		40.4		23.0			
Green Ext Time (p_c), s	0.0				4.4		2.3		0.0			

Intersection Summary

HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	224	1626	1057	0	0	3660
Future Volume (veh/h)	224	1626	1057	0	0	3660
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	233	0	1101	0	0	3812
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	265		3181	0	150	4788
Arrive On Green	0.15	0.00	0.64	0.00	0.00	0.76
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	233	0	1101	0	0	3812
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	14.1	0.0	11.3	0.0	0.0	40.4
Cycle Q Clear(g_c), s	14.1	0.0	11.3	0.0	0.0	40.4
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	265		3181	0	150	4788
V/C Ratio(X)	0.88		0.35	0.00	0.00	0.80
Avail Cap(c_a), veh/h	486		3181	0	578	4788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.16	0.00	0.21	0.00	0.00	0.32
Uniform Delay (d), s/veh	45.9	0.0	9.2	0.0	0.0	7.9
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	3.5	0.0	0.0	9.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.5	0.0	9.3	0.0	0.0	8.4
LnGrp LOS	D		A	A	A	A
Approach Vol, veh/h	233	A	1101			3812
Approach Delay, s/veh	46.5		9.3			8.4
Approach LOS	D		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	3.6	75.1			88.7	21.3
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	35.3	30.1			70.2	30.0
Max Q Clear Time (g_c+I), s	10.6	13.3			42.4	16.1
Green Ext Time (p_c), s	0.0	8.8			27.7	0.3

Intersection Summary

HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

Year 2050 with Project (Alt 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	332	1682	156	167	616	0	0	1236	50
Future Volume (veh/h)	0	0	0	332	1682	156	167	616	0	0	1236	50
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				349	1771	164	176	648	0	0	1301	53
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				360	1959	185	194	2182	0	0	1307	53
Arrive On Green				0.16	0.16	0.16	0.22	0.85	0.00	0.00	0.26	0.26
Sat Flow, veh/h				766	4168	393	1781	5274	0	0	5195	205
Grp Volume(v), veh/h				835	701	748	176	648	0	0	881	473
Grp Sat Flow(s),veh/h/ln				1832	1702	1792	1781	1702	0	0	1702	1827
Q Serve(g_s), s				49.8	44.3	45.0	10.6	2.7	0.0	0.0	28.4	28.4
Cycle Q Clear(g_c), s				49.8	44.3	45.0	10.6	2.7	0.0	0.0	28.4	28.4
Prop In Lane				0.42		0.22	1.00		0.00	0.00		0.11
Lane Grp Cap(c), veh/h				861	800	842	194	2182	0	0	885	475
V/C Ratio(X)				0.97	0.88	0.89	0.91	0.30	0.00	0.00	1.00	1.00
Avail Cap(c_a), veh/h				861	800	842	194	2182	0	0	885	475
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.22	0.22	0.22	0.09	0.09	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				45.7	43.3	43.6	42.4	4.8	0.0	0.0	40.6	40.6
Incr Delay (d2), s/veh				8.9	3.3	3.5	5.8	0.0	0.0	0.0	8.1	11.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				26.5	20.9	22.4	4.4	0.8	0.0	0.0	12.6	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				54.5	46.7	47.1	48.3	4.8	0.0	0.0	48.7	52.0
LnGrp LOS				D	D	D	D	A	A	A	D	D
Approach Vol, veh/h					2284			824			1354	
Approach Delay, s/veh					49.7			14.1			49.8	
Approach LOS					D			B			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				17.9	35.0		57.6	52.9				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				12.0	* 29		51.7	46.5				
Max Q Clear Time (g_c+I1), s				12.6	30.4		51.8	4.7				
Green Ext Time (p_c), s				0.0	0.0		0.0	5.6				
Intersection Summary												
HCM 6th Ctrl Delay					43.2							
HCM 6th LOS					D							
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	466	2137	0	0	0	0	0	1191	137
Future Volume (veh/h)	0	0	0	466	2137	0	0	0	0	0	1191	137
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				485	2226	0				0	1241	143
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				513	2568	0				0	1478	170
Arrive On Green				0.19	0.19	0.00				0.00	0.32	0.32
Sat Flow, veh/h				871	4528	0				0	4799	534
Grp Volume(v), veh/h				1017	1694	0				0	912	472
Grp Sat Flow(s),veh/h/ln				1827	1702	0				0	1702	1760
Q Serve(g_s), s				60.4	52.8	0.0				0.0	27.4	27.4
Cycle Q Clear(g_c), s				60.4	52.8	0.0				0.0	27.4	27.4
Prop In Lane				0.48		0.00				0.00		0.30
Lane Grp Cap(c), veh/h				1076	2005	0				0	1086	562
V/C Ratio(X)				0.94	0.84	0.00				0.00	0.84	0.84
Avail Cap(c_a), veh/h				1076	2005	0				0	1086	562
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				42.5	39.5	0.0				0.0	34.8	34.8
Incr Delay (d2), s/veh				17.0	4.6	0.0				0.0	7.8	14.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				34.5	25.3	0.0				0.0	12.5	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				59.5	44.1	0.0				0.0	42.7	48.9
LnGrp LOS				E	D	A				A	D	D
Approach Vol, veh/h					2711						1384	
Approach Delay, s/veh					49.9						44.8	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				40.0		70.0						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				35.1		64.8						
Max Q Clear Time (g_c+I1), s				29.4		62.4						
Green Ext Time (p_c), s				1.6		1.6						
Intersection Summary												
HCM 6th Ctrl Delay											48.1	
HCM 6th LOS											D	

SDCRAA ADP EIR
21: India St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2455	191	130	355	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2455	191	130	355	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2531	197	134	366	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3347	256	196	573	0			
Arrive On Green				0.00	0.23	0.23	0.07	0.07	0.00			
Sat Flow, veh/h				0	5007	369	920	2775	0			
Grp Volume(v), veh/h				0	1766	962	266	234	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1804	1824	1777	0			
Q Serve(g_s), s				0.0	53.1	54.9	15.6	14.1	0.0			
Cycle Q Clear(g_c), s				0.0	53.1	54.9	15.6	14.1	0.0			
Prop In Lane				0.00		0.20	0.50		0.00			
Lane Grp Cap(c), veh/h				0	2355	1248	390	380	0			
V/C Ratio(X)				0.00	0.75	0.77	0.68	0.62	0.00			
Avail Cap(c_a), veh/h				0	2355	1248	390	380	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	33.6	34.3	47.5	46.7	0.0			
Incr Delay (d2), s/veh				0.0	2.2	4.6	9.3	7.3	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	24.8	28.0	8.7	7.5	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	35.8	38.9	56.8	54.1	0.0			
LnGrp LOS				A	D	D	E	D	A			
Approach Vol, veh/h					2728			500				
Approach Delay, s/veh					36.9			55.5				
Approach LOS					D			E				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						81.6		28.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						76.1		23.5				
Max Q Clear Time (g_c+I1), s						56.9		17.6				
Green Ext Time (p_c), s						17.3		1.6				
Intersection Summary												
HCM 6th Ctrl Delay											39.8	
HCM 6th LOS											D	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	331	2611	0	0	0	0	0	1023	110
Future Volume (veh/h)	0	0	0	331	2611	0	0	0	0	0	1023	110
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.99
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				352	2778	0				0	1088	117
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				329	2805	0				0	1102	485
Arrive On Green				0.20	0.20	0.00				0.00	0.31	0.31
Sat Flow, veh/h				550	4865	0				0	3647	1564
Grp Volume(v), veh/h				1178	1952	0				0	1088	117
Grp Sat Flow(s),veh/h/ln				1843	1702	0				0	1777	1564
Q Serve(g_s), s				65.7	62.5	0.0				0.0	33.5	6.1
Cycle Q Clear(g_c), s				65.7	62.5	0.0				0.0	33.5	6.1
Prop In Lane				0.30		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1101	2033	0				0	1102	485
V/C Ratio(X)				1.07	0.96	0.00				0.00	0.99	0.24
Avail Cap(c_a), veh/h				1101	2033	0				0	1102	485
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				44.2	42.9	0.0				0.0	37.7	28.3
Incr Delay (d2), s/veh				48.1	12.5	0.0				0.0	24.3	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				47.1	32.0	0.0				0.0	18.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				92.3	55.4	0.0				0.0	62.0	29.5
LnGrp LOS				F	E	A				A	E	C
Approach Vol, veh/h					3130						1205	
Approach Delay, s/veh					69.3						58.9	
Approach LOS					E						E	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				39.0		71.0						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				34.1		65.7						
Max Q Clear Time (g_c+l1), s				35.5		67.7						
Green Ext Time (p_c), s				0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay											66.4	
HCM 6th LOS											E	

SDCRAA ADP EIR
23: State St & Hawthorn St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2899	69	176	271	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2899	69	176	271	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	3052	73	185	285	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3661	87	257	430	0			
Arrive On Green				0.00	0.71	0.71	0.06	0.06	0.00			
Sat Flow, veh/h				0	5299	122	1340	2334	0			
Grp Volume(v), veh/h				0	2017	1108	249	221	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1848	1803	1777	0			
Q Serve(g_s), s				0.0	45.8	47.2	14.9	13.4	0.0			
Cycle Q Clear(g_c), s				0.0	45.8	47.2	14.9	13.4	0.0			
Prop In Lane				0.00		0.07	0.74		0.00			
Lane Grp Cap(c), veh/h				0	2429	1319	346	341	0			
V/C Ratio(X)				0.00	0.83	0.84	0.72	0.65	0.00			
Avail Cap(c_a), veh/h				0	2429	1319	346	341	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	11.1	11.3	48.6	47.9	0.0			
Incr Delay (d2), s/veh				0.0	3.5	6.6	12.2	9.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	15.7	18.6	8.4	7.3	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	14.5	17.8	60.8	57.1	0.0			
LnGrp LOS				A	B	B	E	E	A			
Approach Vol, veh/h					3125			470				
Approach Delay, s/veh					15.7			59.1				
Approach LOS					B			E				
Timer - Assigned Phs							6	8				
Phs Duration (G+Y+Rc), s							84.0	26.0				
Change Period (Y+Rc), s							5.5	4.9				
Max Green Setting (Gmax), s							78.5	21.1				
Max Q Clear Time (g_c+I1), s							49.2	16.9				
Green Ext Time (p_c), s							27.3	1.1				
Intersection Summary												
HCM 6th Ctrl Delay				21.4								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	33.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	198	899	6	236	0	0	0	54
Future Vol, veh/h	0	0	0	0	198	899	6	236	0	0	0	54
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	206	936	6	246	0	0	0	56
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	103	1142	-	-	-	571
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	103	1142	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	866	~ 199	0	0	0	464
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	892	273	0	0	0	-
Platoon blocked, %				-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver				-	-	-	761	~ 199	-	-	-	464
Mov Cap-2 Maneuver				-	-	-	761	~ 199	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	784	273	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		189.4		13.8				
HCM LOS						F		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	199	-	-	464								
HCM Lane V/C Ratio	1.235	-	-	0.121								
HCM Control Delay (s)	189.4	-	-	13.8								
HCM Lane LOS	F	-	-	B								
HCM 95th %tile Q(veh)	13	-	-	0.4								
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	1007	69	2439	1573	0
Future Volume (veh/h)	0	0	0	0	0	0	0	1007	69	2439	1573	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.86	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	1028	70	2489	1605	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1092	297	3484	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.22	0.22	0.46	0.64	0.00
Sat Flow, veh/h		0					0	5149	1357	5023	1826	0
Grp Volume(v), veh/h		0.0					0	1028	70	2489	1605	0
Grp Sat Flow(s),veh/h/ln							0	1662	1357	1674	1826	0
Q Serve(g_s), s							0.0	22.3	4.7	43.7	85.1	0.0
Cycle Q Clear(g_c), s							0.0	22.3	4.7	43.7	85.1	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1092	297	3484	1740	0
V/C Ratio(X)							0.00	0.94	0.24	0.71	0.92	0.00
Avail Cap(c_a), veh/h							0	1092	297	3484	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.44	0.44	0.00
Uniform Delay (d), s/veh							0.0	42.3	35.4	20.7	16.3	0.0
Incr Delay (d2), s/veh							0.0	15.7	1.1	0.3	4.8	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	10.3	1.6	17.5	31.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	58.0	36.4	21.0	21.1	0.0
LnGrp LOS							A	E	D	C	C	A
Approach Vol, veh/h								1098			4094	
Approach Delay, s/veh								56.6			21.1	
Approach LOS								E			C	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	80.7	29.3					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	38.6	* 24					66.8					
Max Q Clear Time (g_c+l1), s	45.7	24.3					87.1					
Green Ext Time (p_c), s	0.0	0.0					0.0					
Intersection Summary												
HCM 6th Ctrl Delay			28.6									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	74	2455	105	0	0	0	0	660	448	261	1339	0
Future Volume (veh/h)	74	2455	105	0	0	0	0	660	448	261	1339	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.94	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	76	2505	107				0	673	457	266	1366	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	94	3292	1013				0	774	337	269	2135	0
Arrive On Green	0.21	0.21	0.21				0.00	0.23	0.23	0.30	0.84	0.00
Sat Flow, veh/h	146	5121	1575				0	3572	1485	1781	5274	0
Grp Volume(v), veh/h	971	1610	107				0	673	457	266	1366	0
Grp Sat Flow(s),veh/h/ln	1863	1702	1575				0	1702	1485	1781	1702	0
Q Serve(g_s), s	54.6	48.6	6.0				0.0	20.9	25.0	16.4	10.4	0.0
Cycle Q Clear(g_c), s	54.6	48.6	6.0				0.0	20.9	25.0	16.4	10.4	0.0
Prop In Lane	0.08		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1197	2188	1013				0	774	337	269	2135	0
V/C Ratio(X)	0.81	0.74	0.11				0.00	0.87	1.35	0.99	0.64	0.00
Avail Cap(c_a), veh/h	1197	2188	1013				0	774	337	269	2135	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.09	0.09	0.09				0.00	1.00	1.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	37.0	34.6	17.9				0.0	40.9	42.5	38.3	6.1	0.0
Incr Delay (d2), s/veh	0.6	0.2	0.0				0.0	10.6	177.8	14.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.3	22.1	2.2				0.0	9.7	25.6	6.8	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.5	34.8	17.9				0.0	51.5	220.3	52.4	6.1	0.0
LnGrp LOS	D	C	B				A	D	F	D	A	A
Approach Vol, veh/h	2688						1130			1632		
Approach Delay, s/veh	35.1						119.8			13.7		
Approach LOS	D						F			B		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	76.1			51.4			21.0		30.4			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	54.2			45.5			16.6		* 25			
Max Q Clear Time (g_c+I1), s	56.6			12.4			18.4		27.0			
Green Ext Time (p_c), s	0.0			9.6			0.0		0.0			

Intersection Summary

HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑									↑↑↑		
Traffic Volume (veh/h)	0	3219	109	0	0	0	0	0	0	473	1227	0
Future Volume (veh/h)	0	3219	109	0	0	0	0	0	0	473	1227	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach	No									No		
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3537	120							520	1348	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3000	100							434	1227	0
Arrive On Green	0.00	0.20	0.20							0.11	0.11	0.00
Sat Flow, veh/h	0	5238	170							1362	4013	0
Grp Volume(v), veh/h	0	2360	1297							688	1180	0
Grp Sat Flow(s),veh/h/ln	0	1702	1835							1802	1702	0
Q Serve(g_s), s	0.0	65.1	65.1							35.1	35.1	0.0
Cycle Q Clear(g_c), s	0.0	65.1	65.1							35.1	35.1	0.0
Prop In Lane	0.00		0.09							0.76		0.00
Lane Grp Cap(c), veh/h	0	2015	1086							575	1086	0
V/C Ratio(X)	0.00	1.17	1.19							1.20	1.09	0.00
Avail Cap(c_a), veh/h	0	2015	1086							575	1086	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	44.3	44.3							49.2	49.2	0.0
Incr Delay (d2), s/veh	0.0	82.9	96.5							104.7	53.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	52.8	61.0							33.7	24.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	127.1	140.8							153.9	103.0	0.0
LnGrp LOS	A	F	F							F	F	A
Approach Vol, veh/h	3657									1868		
Approach Delay, s/veh	132.0									121.8		
Approach LOS	F									F		
Timer - Assigned Phs	2			4								
Phs Duration (G+Y+Rc), s	70.0			40.0								
Change Period (Y+Rc), s	4.9			4.9								
Max Green Setting (Gmax), s	65.1			35.1								
Max Q Clear Time (g_c+I1), s	67.1			37.1								
Green Ext Time (p_c), s	0.0			0.0								
Intersection Summary												
HCM 6th Ctrl Delay			128.5									
HCM 6th LOS			F									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	192	3893	0	0	0	0	0	281	207	0	0	0
Future Volume (veh/h)	192	3893	0	0	0	0	0	281	207	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.91			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	211	4278	0				0	309	227			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	173	3759	0				0	312	220			
Arrive On Green	0.25	0.25	0.00				0.00	0.16	0.16			
Sat Flow, veh/h	232	5199	0				0	2000	1345			
Grp Volume(v), veh/h	1690	2799	0				0	287	249			
Grp Sat Flow(s),veh/h/ln	1859	1702	0				0	1777	1475			
Q Serve(g_s), s	82.2	82.2	0.0				0.0	17.7	18.0			
Cycle Q Clear(g_c), s	82.2	82.2	0.0				0.0	17.7	18.0			
Prop In Lane	0.12		0.00				0.00		0.91			
Lane Grp Cap(c), veh/h	1389	2544	0				0	291	241			
V/C Ratio(X)	1.22	1.10	0.00				0.00	0.99	1.03			
Avail Cap(c_a), veh/h	1389	2544	0				0	291	241			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.4	41.4	0.0				0.0	45.9	46.0			
Incr Delay (d2), s/veh	104.3	51.9	0.0				0.0	49.7	66.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.1	55.7	0.0				0.0	11.8	11.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	145.8	93.3	0.0				0.0	95.6	112.3			
LnGrp LOS	F	F	A				A	F	F			
Approach Vol, veh/h	4489					536						
Approach Delay, s/veh	113.1					103.3						
Approach LOS	F					F						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	87.1					22.9						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	82.2					18.0						
Max Q Clear Time (g_c+l1), s	84.2					20.0						
Green Ext Time (p_c), s	0.0					0.0						
Intersection Summary												
HCM 6th Ctrl Delay		112.0										
HCM 6th LOS		F										

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	4326	159	0	0	0	0	0	0	475	842	0
Future Volume (veh/h)	0	4326	159	0	0	0	0	0	0	475	842	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	4702	173							516	915	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3451	125							406	811	0
Arrive On Green	0.00	0.23	0.23							0.08	0.08	0.00
Sat Flow, veh/h	0	5223	184							1781	3647	0
Grp Volume(v), veh/h	0	3146	1729							516	915	0
Grp Sat Flow(s),veh/h/ln	0	1702	1835							1781	1777	0
Q Serve(g_s), s	0.0	75.1	75.1							25.1	25.1	0.0
Cycle Q Clear(g_c), s	0.0	75.1	75.1							25.1	25.1	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2324	1252							406	811	0
V/C Ratio(X)	0.00	1.35	1.38							1.27	1.13	0.00
Avail Cap(c_a), veh/h	0	2324	1252							406	811	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	42.6	42.6							50.9	50.9	0.0
Incr Delay (d2), s/veh	0.0	162.1	176.2							139.4	73.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	86.4	98.0							27.8	20.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	204.7	218.8							190.3	124.0	0.0
LnGrp LOS	A	F	F							F	F	A
Approach Vol, veh/h		4875									1431	
Approach Delay, s/veh		209.7									147.9	
Approach LOS		F									F	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		80.0		30.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		75.1		25.1								
Max Q Clear Time (g_c+l1), s		77.1		27.1								
Green Ext Time (p_c), s		0.0		0.0								
Intersection Summary												
HCM 6th Ctrl Delay			195.7									
HCM 6th LOS			F									
Notes												
User approved pedestrian interval to be less than phase max green.												

SDCRAA ADP EIR
30: State St & W Grape St

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	119	4363	0	0	0	0	0	340	150	0	0	0
Future Volume (veh/h)	119	4363	0	0	0	0	0	340	150	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	140	5133	0				0	400	176			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	97	3792	0				0	416	181			
Arrive On Green	0.24	0.24	0.00				0.00	0.17	0.17			
Sat Flow, veh/h	131	5305	0				0	2504	1048			
Grp Volume(v), veh/h	1985	3288	0				0	293	283			
Grp Sat Flow(s),veh/h/ln	1864	1702	0				0	1777	1682			
Q Serve(g_s), s	81.2	81.2	0.0				0.0	18.0	18.4			
Cycle Q Clear(g_c), s	81.2	81.2	0.0				0.0	18.0	18.4			
Prop In Lane	0.07		0.00				0.00		0.62			
Lane Grp Cap(c), veh/h	1376	2513	0				0	307	290			
V/C Ratio(X)	1.44	1.31	0.00				0.00	0.96	0.97			
Avail Cap(c_a), veh/h	1376	2513	0				0	307	290			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	41.6	41.6	0.0				0.0	45.1	45.2			
Incr Delay (d2), s/veh	203.5	141.8	0.0				0.0	41.3	46.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.2	86.4	0.0				0.0	11.5	11.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	245.1	183.4	0.0				0.0	86.4	91.5			
LnGrp LOS	F	F	A				A	F	F			
Approach Vol, veh/h	5273					576						
Approach Delay, s/veh	206.6					88.9						
Approach LOS	F					F						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	86.1					23.9						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	81.2					19.0						
Max Q Clear Time (g_c+I1), s	83.2					20.4						
Green Ext Time (p_c), s	0.0					0.0						
Intersection Summary												
HCM 6th Ctrl Delay	195.0											
HCM 6th LOS	F											



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	18	1874	1557	64	253	199
Future Volume (veh/h)	18	1874	1557	64	253	199
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	20	2037	1692	70	275	216
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	29	3748	3428	142	544	249
Arrive On Green	0.02	0.75	1.00	1.00	0.16	0.16
Sat Flow, veh/h	1781	5149	5074	203	3456	1585
Grp Volume(v), veh/h	20	2037	1145	617	275	216
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1789	1728	1585
Q Serve(g_s), s	1.3	20.2	0.0	0.0	8.6	15.7
Cycle Q Clear(g_c), s	1.3	20.2	0.0	0.0	8.6	15.7
Prop In Lane	1.00			0.11	1.00	1.00
Lane Grp Cap(c), veh/h	29	3748	2321	1250	544	249
V/C Ratio(X)	0.69	0.54	0.49	0.49	0.51	0.87
Avail Cap(c_a), veh/h	100	3748	2321	1250	1028	471
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.78	0.78	1.00	1.00
Uniform Delay (d), s/veh	57.7	6.1	0.0	0.0	45.5	48.5
Incr Delay (d2), s/veh	7.2	0.4	0.6	1.1	0.3	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	5.4	0.2	0.4	3.7	13.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.0	6.5	0.6	1.1	45.8	52.0
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		2057	1762		491	
Approach Delay, s/veh		7.1	0.8		48.5	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		94.5		23.5	6.3	88.2
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 72		35.1	6.6	61.2
Max Q Clear Time (g_c+I1), s		22.2		17.7	3.3	2.0
Green Ext Time (p_c), s		44.6		0.9	0.0	43.8
Intersection Summary						
HCM 6th Ctrl Delay			9.2			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘	↖ ↗ ↘		↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘	↖ ↗ ↘
Traffic Volume (veh/h)	127	1848	28	6	1550	5	0	9	27	47	0	58
Future Volume (veh/h)	127	1848	28	6	1550	5	0	9	27	47	0	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	146	2124	32	7	1782	0	0	10	31	54	0	67
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	576	3554	53	60	1998		55	12	38	221	0	101
Arrive On Green	0.65	1.00	1.00	0.03	0.40	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5059	76	1781	4985	1585	1781	399	1236	3456	0	1578
Grp Volume(v), veh/h	146	1394	762	7	1782	0	0	0	41	54	0	67
Grp Sat Flow(s), veh/h/ln	1781	1662	1812	1781	1662	1585	1781	0	1635	1728	0	1578
Q Serve(g_s), s	4.1	0.0	0.0	0.4	39.3	0.0	0.0	0.0	2.9	1.8	0.0	4.9
Cycle Q Clear(g_c), s	4.1	0.0	0.0	0.4	39.3	0.0	0.0	0.0	2.9	1.8	0.0	4.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	576	2334	1273	60	1998		55	0	51	221	0	101
V/C Ratio(X)	0.25	0.60	0.60	0.12	0.89		0.00	0.00	0.81	0.24	0.00	0.66
Avail Cap(c_a), veh/h	576	2334	1273	60	1998		62	0	57	996	0	455
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	0.0	0.0	55.3	33.0	0.0	0.0	0.0	56.8	52.5	0.0	54.0
Incr Delay (d2), s/veh	0.1	0.9	1.7	0.3	6.5	0.0	0.0	0.0	47.6	0.2	0.0	2.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	0.3	0.6	0.2	16.1	0.0	0.0	0.0	1.9	0.8	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.9	0.9	1.7	55.6	39.5	0.0	0.0	0.0	104.4	52.7	0.0	56.7
LnGrp LOS	B	A	A	E	D		A	A	F	D	A	E
Approach Vol, veh/h	2302			1789			41			121		
Approach Delay, s/veh	2.1			39.6			104.4			54.9		
Approach LOS	A			D			F			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.6			12.5	43.9	53.1		8.6				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	4.0	56.0		34.0	12.6	* 47		4.1				
Max Q Clear Time (g_c+I), s	12.4	2.0		6.9	6.1	41.3		4.9				
Green Ext Time (p_c), s	0.0	43.7		0.4	0.1	5.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 20.3

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
33: Harbor Island Dr & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	233	1816	5	739	1988	0	5	35	806	0	30	170
Future Volume (veh/h)	233	1816	5	739	1988	0	5	35	806	0	30	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	251	1953	5	795	2138	0	5	38	0	0	32	183
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	619	2924	1000	486	2331	0	155	84		0	111	150
Arrive On Green	0.35	0.59	0.59	0.14	0.37	0.00	0.04	0.04	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2536
Grp Volume(v), veh/h	251	1953	5	795	2138	0	5	38	0	0	32	183
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1268
Q Serve(g_s), s	12.6	31.4	0.1	16.6	38.3	0.0	0.2	2.3	0.0	0.0	1.9	7.0
Cycle Q Clear(g_c), s	12.6	31.4	0.1	16.6	38.3	0.0	0.2	2.3	0.0	0.0	1.9	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	619	2924	1000	486	2331	0	155	84		0	111	150
V/C Ratio(X)	0.41	0.67	0.00	1.64	0.92	0.00	0.03	0.45		0.00	0.29	1.22
Avail Cap(c_a), veh/h	619	2924	1000	486	2331	0	1084	586		0	111	150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	16.6	8.0	50.7	35.4	0.0	53.9	54.9	0.0	0.0	53.1	55.5
Incr Delay (d2), s/veh	0.2	1.2	0.0	286.8	0.8	0.0	0.0	1.3	0.0	0.0	1.4	143.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	11.0	0.1	26.3	13.9	0.0	0.1	1.1	0.0	0.0	0.9	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.4	17.8	8.1	337.5	36.1	0.0	53.9	56.3	0.0	0.0	54.5	198.7
LnGrp LOS	C	B	A	F	D	A	D	E		A	D	F
Approach Vol, veh/h	2209			2933			43			A	215	
Approach Delay, s/veh	19.1			117.8			56.0				177.2	
Approach LOS	B			F			E				F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	31.0	74.9		11.9	46.7	49.2		10.2				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	16.6	37.5		7.0	10.6	* 44		37.0				
Max Q Clear Time (g_c+T1), s	11.6	33.4		9.0	14.6	40.3		4.3				
Green Ext Time (p_c), s	0.0	3.9		0.0	0.0	3.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay 79.3

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	0	158	30	0	2	82	720	25	2	938	2
Future Volume (veh/h)	2	0	158	30	0	2	82	720	25	2	938	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	0	168	32	22	-13	87	766	27	2	998	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	0	137	38	26	57	163	1493	53	160	1545	3
Arrive On Green	0.09	0.00	0.09	0.04	0.04	0.00	0.09	0.43	0.43	0.09	0.42	0.42
Sat Flow, veh/h	1781	0	1527	1076	740	1585	1781	3499	123	1781	3638	7
Grp Volume(v), veh/h	2	0	168	54	0	-13	87	389	404	2	487	513
Grp Sat Flow(s),veh/h/ln	1781	0	1527	1817	0	1585	1781	1777	1846	1781	1777	1869
Q Serve(g_s), s	0.0	0.0	4.0	1.3	0.0	0.0	2.1	7.2	7.2	0.0	9.7	9.7
Cycle Q Clear(g_c), s	0.0	0.0	4.0	1.3	0.0	0.0	2.1	7.2	7.2	0.0	9.7	9.7
Prop In Lane	1.00		1.00	0.59		1.00	1.00		0.07	1.00		0.00
Lane Grp Cap(c), veh/h	160	0	137	65	0	57	163	758	787	160	754	794
V/C Ratio(X)	0.01	0.00	1.23	0.83	0.00	-0.23	0.53	0.51	0.51	0.01	0.65	0.65
Avail Cap(c_a), veh/h	160	0	137	1180	0	1030	200	1274	1323	160	1234	1298
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	20.3	21.4	0.0	0.0	19.4	9.4	9.4	18.5	10.2	10.2
Incr Delay (d2), s/veh	0.0	0.0	150.6	9.8	0.0	0.0	1.0	0.4	0.4	0.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	7.0	0.7	0.0	0.0	0.8	2.1	2.2	0.0	2.8	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	0.0	170.9	31.2	0.0	0.0	20.4	9.8	9.8	18.5	10.9	10.8
LnGrp LOS	B	A	F	C	A	A	C	A	A	B	B	B
Approach Vol, veh/h	170				41				880		1002	
Approach Delay, s/veh	169.1				41.1				10.8		10.9	
Approach LOS	F				D				B		B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	23.0	8.0		8.1	23.0	5.6					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	32.0	32.0	4.0		5.0	31.0	29.0					
Max Q Clear Time (g_c+I2, s)	9.2	9.2	6.0		4.1	11.7	3.3					
Green Ext Time (p_c), s	0.0	4.0	0.0		0.0	5.1	0.2					

Intersection Summary

HCM 6th Ctrl Delay 24.3

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	503	2	2	544	531	436
Future Volume (veh/h)	503	2	2	544	531	436
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	554	0	2	0	584	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	791	415	540		768	
Arrive On Green	0.22	0.00	0.29	0.00	0.22	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	554	0	2	0	584	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	6.4	0.0	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s	6.4	0.0	0.0	0.0	7.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	791	415	540		768	
V/C Ratio(X)	0.70	0.00	0.00		0.76	
Avail Cap(c_a), veh/h	950	499	540		999	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.1	0.0	11.4	0.0	16.4	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0	0.0	2.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.4	0.0	0.0	0.0	2.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.9	0.0	11.4	0.0	18.9	0.0
LnGrp LOS	B	A	B		B	
Approach Vol, veh/h		554	2	A	584	A
Approach Delay, s/veh		17.9	11.4		18.9	
Approach LOS		B	B		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		14.0		14.0		17.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		12.0		13.0		13.0
Max Q Clear Time (g_c+I1), s		8.4		9.1		2.0
Green Ext Time (p_c), s		0.8		0.9		0.0

Intersection Summary

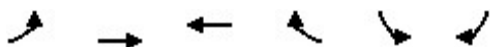
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

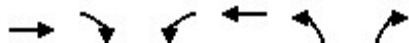
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	548	452	10	1	2
Future Vol, veh/h	9	548	452	10	1	2
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	637	526	12	1	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	538	0	-	0	871	269
Stage 1	-	-	-	-	532	-
Stage 2	-	-	-	-	339	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1026	-	-	-	290	729
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	693	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1026	-	-	-	286	729
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	545	-
Stage 2	-	-	-	-	693	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		12.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1026	-	-	-	481	
HCM Lane V/C Ratio	0.01	-	-	-	0.007	
HCM Control Delay (s)	8.5	0.1	-	-	12.5	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	
Traffic Volume (veh/h)	0	2909	4908	0	0	0
Future Volume (veh/h)	0	2909	4908	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1900
Adj Flow Rate, veh/h	0	3162	5335	0	1412	1405
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	0	2	0
Cap, veh/h	0	5254	5254	0	9999	9999
Arrive On Green	0.00	0.82	0.82	0.00	0.12	0.12
Sat Flow, veh/h	0	6958	6958	2516	9347	10135
Grp Volume(v), veh/h	0	3162	5335	0	1412	1405
Grp Sat Flow(s),veh/h/ln	0	1609	1609	0	1781	1610
Q Serve(g_s), s	0.0	26.6	122.5	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.0	26.6	122.5	0.0	0.1	0.2
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	5254	5254	3104	2197	2009
V/C Ratio(X)	0.00	0.60	1.02	0.00	0.00	0.01
Avail Cap(c_a), veh/h	0	5254	5254	3104	2197	2009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	5.0	13.7	0.0	57.7	57.7
Incr Delay (d2), s/veh	0.0	0.5	16.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.5	35.2	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	5.5	30.2	0.0	57.7	57.7
LnGrp LOS	A	A	F	A	E	E
Approach Vol, veh/h		3162	5335	1077	1255	04
Approach Delay, s/veh		5.5	30.2		57.7	
Approach LOS		A	C		E	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				127.0	23.0	127.0
Change Period (Y+Rc), s				4.5	4.5	4.5
Max Green Setting (Gmax), s				122.5	18.5	122.5
Max Q Clear Time (g_c+I1), s				28.6	2.2	124.5
Green Ext Time (p_c), s				74.8	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			57.7			
HCM 6th LOS			E			
Notes						
User approved pedestrian interval to be less than phase max green.						



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	4573	52	128	1393	46	171
Future Volume (veh/h)	4573	52	128	1393	46	171
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	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	4917	56	138	1498	49	184
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4341	1094	135	4820	260	209
Arrive On Green	0.69	0.69	0.08	1.00	0.15	0.15
Sat Flow, veh/h	6537	1583	3456	6537	1781	1427
Grp Volume(v), veh/h	4917	56	138	1498	49	184
Grp Sat Flow(s), veh/h/ln	1570	1583	1728	1570	1781	1427
Q Serve(g_s), s	81.5	1.3	4.6	0.0	2.8	14.9
Cycle Q Clear(g_c), s	81.5	1.3	4.6	0.0	2.8	14.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4341	1094	135	4820	260	209
V/C Ratio(X)	1.13	0.05	1.02	0.31	0.19	0.88
Avail Cap(c_a), veh/h	4341	1094	135	4820	483	387
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	18.2	5.8	54.4	0.0	44.2	49.4
Incr Delay (d2), s/veh	62.3	0.1	83.4	0.2	0.1	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.4	3.4	0.1	1.3	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	80.5	5.9	137.8	0.2	44.4	54.1
LnGrp LOS	F	A	F	A	D	D
Approach Vol, veh/h	4973			1636	233	
Approach Delay, s/veh	79.7			11.8	52.1	
Approach LOS	E			B	D	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	9.0	86.8		95.8	22.2	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	4.6	66.8		75.8	32.0	
Max Q Clear Time (g_c+I10), s	10.6	83.5		2.0	16.9	
Green Ext Time (p_c), s	0.0	0.0		41.1	0.3	

Intersection Summary

HCM 6th Ctrl Delay	62.5
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

SDCRAA ADP EIR
39: Dwy/Ryan Gate Cell Phone Lot & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK



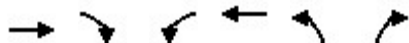
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱				↰ ↱		↰ ↱		
Traffic Volume (veh/h)	9	4553	0	11	1160	60	0	0	0	5	0	5
Future Volume (veh/h)	9	4553	0	11	1160	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	4844	0	12	1234	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4067	0	60	5177	268	0	49	0	107	0	41
Arrive On Green	0.02	1.00	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	6161	319	0	1870	0	1741	0	1557
Grp Volume(v), veh/h	10	4844	0	12	943	355	0	0	0	5	0	5
Grp Sat Flow(s),veh/h/ln	1781	1662	0	1781	1570	1769	0	1870	0	1741	0	1557
Q Serve(g_s), s	0.7	0.0	0.0	0.8	4.7	4.7	0.0	0.0	0.0	0.3	0.0	0.4
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.8	4.7	4.7	0.0	0.0	0.0	0.3	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.18	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4067	0	60	3959	1486	0	49	0	107	0	41
V/C Ratio(X)	0.59	1.19	0.00	0.20	0.24	0.24	0.00	0.00	0.00	0.05	0.00	0.12
Avail Cap(c_a), veh/h	60	4067	0	60	3959	1486	0	507	0	533	0	422
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.97	0.97	0.97	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.7	0.0	0.0	55.4	1.9	1.9	0.0	0.0	0.0	56.1	0.0	56.1
Incr Delay (d2), s/veh	1.1	86.2	0.0	0.6	0.1	0.4	0.0	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 BackOfQ(50%),veh/ln	0.3	32.5	0.0	0.3	0.7	0.9	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	86.2	0.0	56.0	2.0	2.2	0.0	0.0	0.0	56.2	0.0	56.6
LnGrp LOS	E	F	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	4854			1310			0			10		
Approach Delay, s/veh	86.1			2.6			0.0			56.4		
Approach LOS	F			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	101.6			8.0	5.5	104.5		8.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	67.4			32.0	4.0	67.4		32.0				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.7	6.7		0.0				
Green Ext Time (p_c), s	0.0	65.1		0.0	0.0	26.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	68.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↖	↑↑↑	↖	
Traffic Volume (veh/h)	4513	1	15	1257	0	18
Future Volume (veh/h)	4513	1	15	1257	0	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	4701	1	16	1309	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4086	1	23	4175	0	117
Arrive On Green	0.79	0.79	0.01	0.84	0.00	0.10
Sat Flow, veh/h	5312	1	1781	5149	0	1223
Grp Volume(v), veh/h	3035	1667	16	1309	0	20
Grp Sat Flow(s),veh/h/ln	1662	1826	1781	1662	0	1287
Q Serve(g_s), s	113.9	113.9	1.3	8.3	0.0	2.0
Cycle Q Clear(g_c), s	113.9	113.9	1.3	8.3	0.0	2.0
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2638	1449	23	4175	0	123
V/C Ratio(X)	1.15	1.15	0.68	0.31	0.00	0.16
Avail Cap(c_a), veh/h	2638	1449	50	4248	0	162
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	14.8	70.5	2.6	0.0	59.6
Incr Delay (d2), s/veh	72.6	76.2	12.3	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	56.4	63.4	0.7	1.8	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	87.4	91.0	82.8	2.7	0.0	60.2
LnGrp LOS	F	F	F	A	A	E
Approach Vol, veh/h	4702			1325	20	
Approach Delay, s/veh	88.7			3.7	60.2	
Approach LOS	F			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	63	119.1		125.4	18.1	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	113.9			122.3	18.1	
Max Q Clear Time (g_c+I), s	113.9			10.3	4.0	
Green Ext Time (p_c), s	0.0	0.0		43.4	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			69.9			
HCM 6th LOS			E			

Intersection

Int Delay, s/veh 3357.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	1197	0	0	2875	942
Future Vol, veh/h	0	1197	0	0	2875	942
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1273	0	0	3059	1002

Major/Minor	Minor2	Major2
Conflicting Flow All	3560 2034	- 0
Stage 1	3560 -	- -
Stage 2	0 -	- -
Critical Hdwy	5.74 7.14	- -
Critical Hdwy Stg 1	6.64 -	- -
Critical Hdwy Stg 2	- -	- -
Follow-up Hdwy	3.82 3.92	- -
Pot Cap-1 Maneuver	12 ~ 40	- -
Stage 1	5 -	- -
Stage 2	- -	- -
Platoon blocked, %		- -
Mov Cap-1 Maneuver	12 ~ 40	- -
Mov Cap-2 Maneuver	12 -	- -
Stage 1	5 -	- -
Stage 2	- -	- -

Approach	EB	SB
HCM Control Delay (s)	4063.1	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	40	-	-
HCM Lane V/C Ratio	-	31.835	-	-
HCM Control Delay (s)	\$4063.1	-	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	157.2	-	-

Notes

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

Year 2050 with Project (Alt 4)
Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	213	1149	26	16	1115	642	30	65	34	417	31	301
Future Volume (veh/h)	213	1149	26	16	1115	642	30	65	34	417	31	301
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	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	1291	29	18	1253	721	34	73	38	469	35	338
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1816	560	152	1540	474	223	530	306	553	746	658
Arrive On Green	0.05	0.12	0.12	0.09	0.30	0.30	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1781	5106	1574	1781	5106	1572	423	1262	728	1271	1777	1568
Grp Volume(v), veh/h	239	1291	29	18	1253	721	64	0	81	469	35	338
Grp Sat Flow(s),veh/h/ln	1781	1702	1574	1781	1702	1572	863	0	1551	1271	1777	1568
Q Serve(g_s), s	16.0	29.2	2.0	1.1	27.3	36.2	1.9	0.0	3.8	42.9	1.4	19.1
Cycle Q Clear(g_c), s	16.0	29.2	2.0	1.1	27.3	36.2	21.1	0.0	3.8	46.8	1.4	19.1
Prop In Lane	1.00		1.00	1.00		1.00	0.53		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	268	1816	560	152	1540	474	408	0	651	553	746	658
V/C Ratio(X)	0.89	0.71	0.05	0.12	0.81	1.52	0.16	0.00	0.12	0.85	0.05	0.51
Avail Cap(c_a), veh/h	276	2059	635	152	1540	474	416	0	660	561	757	668
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.85	0.85	0.85	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	47.0	35.0	50.7	38.8	41.9	25.3	0.0	21.3	35.6	20.6	25.7
Incr Delay (d2), s/veh	25.2	2.2	0.2	0.1	4.1	243.4	0.1	0.0	0.0	13.3	0.1	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	13.6	0.8	0.5	11.5	45.4	1.4	0.0	1.4	15.1	0.6	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.3	49.2	35.1	50.8	42.9	285.3	25.3	0.0	21.3	48.9	20.7	27.6
LnGrp LOS	F	D	D	D	D	F	C	A	C	D	C	C
Approach Vol, veh/h		1559			1992			145			842	
Approach Delay, s/veh		53.9			130.7			23.1			39.2	
Approach LOS		D			F			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.3	48.4		55.3	22.4	42.3		55.3				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	5.5	* 48		51.1	18.6	34.9		51.1				
Max Q Clear Time (g_c+I1), s	3.1	31.2		48.8	18.0	38.2		23.1				
Green Ext Time (p_c), s	0.0	11.5		1.6	0.0	0.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	83.9
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↻			↰ ↱ ↲ ↻	↰ ↱ ↲ ↻			↰ ↱ ↲ ↻	↰ ↱ ↲ ↻		↰ ↱ ↲ ↻	
Traffic Volume (veh/h)	86	862	3	0	811	650	2	0	0	500	0	58
Future Volume (veh/h)	86	862	3	0	811	650	2	0	0	500	0	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	947	3	0	891	0	2	0	0	609	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	83	1193	4	637	1933		53	0	47	725	381	0
Arrive On Green	0.05	0.23	0.23	0.00	0.18	0.00	0.03	0.00	0.00	0.20	0.00	0.00
Sat Flow, veh/h	1781	5255	17	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	95	613	337	0	891	0	2	0	0	609	0	0
Grp Sat Flow(s),veh/h/ln	1781	1702	1867	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	5.6	20.4	20.4	0.0	26.9	0.0	0.1	0.0	0.0	19.7	0.0	0.0
Cycle Q Clear(g_c), s	5.6	20.4	20.4	0.0	26.9	0.0	0.1	0.0	0.0	19.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	83	773	424	637	1933		53	0	47	725	381	0
V/C Ratio(X)	1.14	0.79	0.79	0.00	0.46		0.04	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	83	814	447	637	1933		445	0	396	1098	577	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.51	0.00	1.00	0.00	0.00	0.54	0.00	0.00
Uniform Delay (d), s/veh	57.2	43.7	43.7	0.0	33.5	0.0	56.5	0.0	0.0	45.9	0.0	0.0
Incr Delay (d2), s/veh	142.4	8.3	14.2	0.0	0.4	0.0	0.1	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.2	10.8	0.0	12.8	0.0	0.1	0.0	0.0	8.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	199.6	52.0	58.0	0.0	33.9	0.0	56.6	0.0	0.0	47.1	0.0	0.0
LnGrp LOS	F	D	E	A	C		E	A	A	D	A	A
Approach Vol, veh/h	1045				891		A		2		609	
Approach Delay, s/veh	67.3				33.9				56.6		47.1	
Approach LOS	E				C				E		D	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	48.8	32.3	30.3		10.0	71.2	8.5					
Change Period (Y+Rc), s	5.9	* 5.1	5.9		4.4	5.9	4.9					
Max Green Setting (Gmax), s	48.8	* 29	37.0		5.6	26.3	30.0					
Max Q Clear Time (g_c+I), s	10.0	22.4	21.7		7.6	28.9	2.1					
Green Ext Time (p_c), s	0.0	4.8	1.1		0.0	0.0	0.0					

Intersection Summary

HCM 6th Ctrl Delay	50.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	543	506	220	97	744	318	340	1323	96	213	1237	360
Future Volume (veh/h)	543	506	220	97	744	318	340	1323	96	213	1237	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No				No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	578	538	234	103	791	338	362	1407	102	227	1316	383
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	886	384	116	734	401	406	1670	121	175	1529	678
Arrive On Green	0.22	0.37	0.37	0.07	0.21	0.21	0.12	0.50	0.50	0.05	0.43	0.43
Sat Flow, veh/h	1781	2403	1042	1781	3554	1551	3456	3359	243	3456	3554	1575
Grp Volume(v), veh/h	578	397	375	103	791	338	362	742	767	227	1316	383
Grp Sat Flow(s),veh/h/ln	1781	1777	1668	1781	1777	1551	1728	1777	1825	1728	1777	1575
Q Serve(g_s), s	33.6	27.3	27.4	8.6	31.0	25.3	15.5	54.0	54.7	7.6	50.2	18.6
Cycle Q Clear(g_c), s	33.6	27.3	27.4	8.6	31.0	25.3	15.5	54.0	54.7	7.6	50.2	18.6
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	399	655	615	116	734	401	406	883	907	175	1529	678
V/C Ratio(X)	1.45	0.61	0.61	0.89	1.08	0.84	0.89	0.84	0.85	1.30	0.86	0.56
Avail Cap(c_a), veh/h	399	655	615	116	734	401	475	883	907	175	1529	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.2	38.5	38.6	69.5	59.5	40.9	65.3	32.6	32.7	71.2	38.6	14.8
Incr Delay (d2), s/veh	215.5	1.2	1.3	44.8	54.2	12.9	15.7	9.4	9.6	168.9	6.6	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.2	11.5	5.4	19.5	11.1	7.7	25.3	26.3	7.5	23.2	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	273.7	39.7	39.8	114.3	113.7	53.8	80.9	42.0	42.3	240.1	45.2	18.2
LnGrp LOS	F	D	D	F	F	D	F	D	D	F	D	B
Approach Vol, veh/h	1350		1232				1871			1926		
Approach Delay, s/veh	139.9		97.3				49.7			62.8		
Approach LOS	F		F				D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	79.9	79.9	14.2	60.5	22.0	69.9	38.8	35.9				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	7.6	* 59	9.8	54.5	20.6	45.8	33.6	* 31				
Max Q Clear Time (g_c+I), s	19.6	56.7	10.6	29.4	17.5	52.2	35.6	33.0				
Green Ext Time (p_c), s	0.0	1.3	0.0	1.8	0.1	0.0	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	81.9
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	181	73	462	650	113	201	394	85	109	362	117
Future Volume (veh/h)	124	181	73	462	650	113	201	394	85	109	362	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	133	195	78	497	699	122	216	424	91	117	389	126
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	397	334	528	782	661	246	994	206	145	608	263
Arrive On Green	0.09	0.21	0.21	0.30	0.42	0.42	0.14	0.24	0.24	0.08	0.17	0.17
Sat Flow, veh/h	1781	1870	1574	1781	1870	1579	1781	4214	874	1781	3554	1536
Grp Volume(v), veh/h	133	195	78	497	699	122	216	340	175	117	389	126
Grp Sat Flow(s),veh/h/ln	1781	1870	1574	1781	1870	1579	1781	1702	1684	1781	1777	1536
Q Serve(g_s), s	8.0	10.0	3.2	29.7	37.9	5.3	13.0	9.2	9.7	7.0	11.1	6.3
Cycle Q Clear(g_c), s	8.0	10.0	3.2	29.7	37.9	5.3	13.0	9.2	9.7	7.0	11.1	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	161	397	334	528	782	661	246	803	397	145	608	263
V/C Ratio(X)	0.83	0.49	0.23	0.94	0.89	0.18	0.88	0.42	0.44	0.81	0.64	0.48
Avail Cap(c_a), veh/h	188	566	476	647	1048	885	287	965	477	286	1004	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	37.8	17.7	37.5	29.5	20.0	46.1	35.4	35.5	49.3	42.1	25.1
Incr Delay (d2), s/veh	19.7	0.3	0.1	18.6	7.9	0.1	20.9	0.7	1.4	4.0	2.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	4.6	1.7	15.6	18.4	2.0	7.1	3.9	4.1	3.3	5.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.5	38.1	17.9	56.0	37.4	20.1	67.1	36.0	37.0	53.3	44.1	27.5
LnGrp LOS	E	D	B	E	D	C	E	D	D	D	D	C
Approach Vol, veh/h	406			1318			731			632		
Approach Delay, s/veh	44.2			42.8			45.4			42.5		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.0	36.7	28.1	20.3	23.9	14.3	50.5					
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	5.3	* 5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.9	39.6	33.0	17.6	* 31	11.5	61.1					
Max Q Clear Time (g_c+I), s	11.7	31.7	12.0	15.0	13.1	10.0	39.9					
Green Ext Time (p_c), s	0.1	5.1	0.6	0.8	0.1	4.4	0.0	5.8				

Intersection Summary

HCM 6th Ctrl Delay 43.5

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	58	43	174	8	12	46	592	400	153	842	18
Future Volume (veh/h)	32	58	43	174	8	12	46	592	400	153	842	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	64	47	191	9	13	51	651	440	168	925	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	64	161	118	235	177	256	65	1065	675	208	1953	42
Arrive On Green	0.04	0.16	0.16	0.13	0.26	0.26	0.04	0.30	0.30	0.12	0.38	0.38
Sat Flow, veh/h	1781	999	734	1781	690	997	1781	3554	1554	1781	5139	111
Grp Volume(v), veh/h	35	0	111	191	0	22	51	651	440	168	612	333
Grp Sat Flow(s),veh/h/ln	1781	0	1733	1781	0	1687	1781	1777	1554	1781	1702	1846
Q Serve(g_s), s	1.3	0.0	3.8	7.0	0.0	0.7	1.9	10.5	15.0	6.1	9.1	9.1
Cycle Q Clear(g_c), s	1.3	0.0	3.8	7.0	0.0	0.7	1.9	10.5	15.0	6.1	9.1	9.1
Prop In Lane	1.00		0.42	1.00		0.59	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	64	0	279	235	0	433	65	1065	675	208	1294	702
V/C Ratio(X)	0.55	0.00	0.40	0.81	0.00	0.05	0.78	0.61	0.65	0.81	0.47	0.47
Avail Cap(c_a), veh/h	160	0	805	288	0	885	128	1102	691	256	1294	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	31.6	0.0	25.1	28.2	0.0	18.7	31.9	20.0	15.0	28.7	15.6	15.6
Incr Delay (d2), s/veh	7.2	0.0	0.3	13.6	0.0	0.0	7.3	1.3	2.7	11.6	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.6	3.8	0.0	0.2	0.9	4.1	5.3	3.1	3.2	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	0.0	25.4	41.8	0.0	18.7	39.2	21.3	17.8	40.4	15.9	16.1
LnGrp LOS	D	A	C	D	A	B	D	C	B	D	B	B
Approach Vol, veh/h	146				213		1142				1113	
Approach Delay, s/veh	28.7				39.4		20.8				19.7	
Approach LOS	C				D		C				B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.2	25.7	13.3	15.5	6.8	31.1	6.9	21.9				
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.8	4.4	5.7	4.5	* 4.8				
Max Green Setting (Gmax), s	20.6	* 21	10.8	* 31	4.8	24.8	6.0	* 35				
Max Q Clear Time (g_c+I1), s	17.0	17.0	9.0	5.8	3.9	11.1	3.3	2.7				
Green Ext Time (p_c), s	0.0	2.7	0.1	0.4	0.0	5.1	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

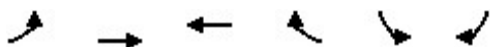
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↘	↘	↘
Traffic Volume (veh/h)	1361	2693	3777	11	0	127
Future Volume (veh/h)	1361	2693	3777	11	0	127
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1547	3060	4292	0	0	144
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1360	2970	2772		141	555
Arrive On Green	0.27	0.86	0.56	0.00	0.00	0.08
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1547	3060	4292	0	0	144
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	40.6	128.4	83.4	0.0	0.0	9.7
Cycle Q Clear(g_c), s	40.6	128.4	83.4	0.0	0.0	9.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1360	2970	2772		141	555
V/C Ratio(X)	1.14	1.03	1.55		0.00	0.26
Avail Cap(c_a), veh/h	1360	2970	2772		202	609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	0.00	1.00
Uniform Delay (d), s/veh	54.7	10.8	33.3	0.0	0.0	34.9
Incr Delay (d2), s/veh	71.5	24.9	246.9	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.7	35.5	94.5	0.0	0.0	9.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	126.2	35.7	280.2	0.0	0.0	35.1
LnGrp LOS	F	F	F		A	D
Approach Vol, veh/h		4607	4292	A	144	
Approach Delay, s/veh		66.1	280.2		35.1	
Approach LOS		E	F		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		133.7		16.3	45.0	88.7
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	40.6	* 79
Max Q Clear Time (g_c+I1), s		130.4		11.7	42.6	85.4
Green Ext Time (p_c), s		0.0		0.2	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			167.2			
HCM 6th LOS			F			

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	1048	87	61	1366	49	230	333	69	38	227	864
Future Volume (veh/h)	504	1048	87	61	1366	49	230	333	69	38	227	864
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.95	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	542	1127	94	66	1469	53	247	358	74	41	244	929
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	521	1994	166	143	1856	67	233	551	444	53	687	899
Arrive On Green	0.15	0.60	0.60	0.16	1.00	1.00	0.13	0.29	0.29	0.03	0.19	0.19
Sat Flow, veh/h	3456	3316	276	1781	3498	126	1781	1870	1508	1781	3554	2475
Grp Volume(v), veh/h	542	603	618	66	745	777	247	358	74	41	244	929
Grp Sat Flow(s),veh/h/ln	1728	1777	1816	1781	1777	1847	1781	1870	1508	1781	1777	1237
Q Serve(g_s), s	22.6	30.7	30.8	5.0	0.0	0.0	19.6	25.1	5.5	3.4	8.9	29.0
Cycle Q Clear(g_c), s	22.6	30.7	30.8	5.0	0.0	0.0	19.6	25.1	5.5	3.4	8.9	29.0
Prop In Lane	1.00		0.15	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	521	1068	1092	143	943	980	233	551	444	53	687	899
V/C Ratio(X)	1.04	0.56	0.57	0.46	0.79	0.79	1.06	0.65	0.17	0.78	0.36	1.03
Avail Cap(c_a), veh/h	521	1068	1092	143	943	980	233	551	444	76	687	899
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.57	0.57	0.57	0.97	0.97	0.97	0.87	0.87	0.87
Uniform Delay (d), s/veh	63.7	18.0	18.1	60.1	0.0	0.0	65.2	46.2	39.3	72.3	52.4	50.0
Incr Delay (d2), s/veh	50.5	2.2	2.1	6.1	3.9	3.8	75.2	2.7	0.2	13.8	0.4	37.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	12.7	13.0	2.4	1.0	1.0	13.7	12.1	2.1	1.8	4.0	21.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	114.2	20.2	20.2	66.1	3.9	3.8	140.4	48.9	39.5	86.1	52.8	87.0
LnGrp LOS	F	C	C	E	A	A	F	D	D	F	D	F
Approach Vol, veh/h	1763				1588				679		1214	
Approach Delay, s/veh	49.1				6.5				81.2		80.1	
Approach LOS	D				A				F		F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.2	16.4	96.6	24.0	34.0	27.0	86.0					
Change Period (Y+Rc), s	4.4	* 5	4.4	* 5.8	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	42	* 42	12.0	* 70	19.6	29.0	22.6	59.2				
Max Q Clear Time (g_c+1/4), s	27.1	7.0	32.8	21.6	31.0	24.6	2.0					
Green Ext Time (p_c), s	0.0	2.3	0.0	14.2	0.0	0.0	0.0	13.1				

Intersection Summary

HCM 6th Ctrl Delay	47.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	1017	88	66	221	0	0	0	0	423	597	1314
Future Volume (veh/h)	0	1017	88	66	221	0	0	0	0	423	597	1314
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1143	99	74	248	0				475	671	1476
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1368	118	914	3412	0				636	1000	1237
Arrive On Green	0.00	0.83	0.83	0.51	0.96	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3398	286	1781	3647	0				1392	2186	2706
Grp Volume(v), veh/h	0	614	628	74	248	0				615	531	1476
Grp Sat Flow(s),veh/h/ln	0	1777	1814	1781	1777	0				1801	1777	1353
Q Serve(g_s), s	0.0	28.9	29.1	3.2	0.5	0.0				42.2	34.7	68.6
Cycle Q Clear(g_c), s	0.0	28.9	29.1	3.2	0.5	0.0				42.2	34.7	68.6
Prop In Lane	0.00		0.16	1.00		0.00				0.77		1.00
Lane Grp Cap(c), veh/h	0	736	751	914	3412	0				824	813	1237
V/C Ratio(X)	0.00	0.83	0.84	0.08	0.07	0.00				0.75	0.65	1.19
Avail Cap(c_a), veh/h	0	736	751	914	3412	0				824	813	1237
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.64	0.64	0.35	0.35	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	10.0	10.1	18.5	0.1	0.0				33.5	31.5	40.7
Incr Delay (d2), s/veh	0.0	7.2	7.2	0.0	0.0	0.0				6.1	4.1	95.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	5.8	1.3	0.0	0.0				20.0	16.0	39.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.2	17.2	18.5	0.1	0.0				39.6	35.6	135.7
LnGrp LOS	A	B	B	B	A	A				D	D	F
Approach Vol, veh/h		1242			322						2622	
Approach Delay, s/veh		17.2			4.4						92.9	
Approach LOS		B			A						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	85.8	67.0		74.0		152.8						
Change Period (Y+Rc), s	6.6	* 4.9		5.4		6.6						
Max Green Setting (Gmax), s	62.6	* 62		68.6		69.4						
Max Q Clear Time (g_c+I), s	15.2	31.1		70.6		2.5						
Green Ext Time (p_c), s	0.0	2.6		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	63.6
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑									↑↑↑↑	
Traffic Volume (veh/h)	0	2431	77	0	0	0	0	0	0	241	765	0
Future Volume (veh/h)	0	2431	77	0	0	0	0	0	0	241	765	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2614	83							259	823	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3021	96							432	1489	0
Arrive On Green	0.00	0.15	0.15							0.37	0.37	0.00
Sat Flow, veh/h	0	6713	204							1174	4210	0
Grp Volume(v), veh/h	0	1954	743							400	682	0
Grp Sat Flow(s),veh/h/ln	0	1609	1830							1812	1702	0
Q Serve(g_s), s	0.0	23.7	23.8							10.7	9.5	0.0
Cycle Q Clear(g_c), s	0.0	23.7	23.8							10.7	9.5	0.0
Prop In Lane	0.00		0.11							0.65		0.00
Lane Grp Cap(c), veh/h	0	2260	857							667	1254	0
V/C Ratio(X)	0.00	0.86	0.87							0.60	0.54	0.00
Avail Cap(c_a), veh/h	0	2260	857							667	1254	0
HCM Platoon Ratio	1.00	0.33	0.33							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	23.5	23.5							15.4	15.0	0.0
Incr Delay (d2), s/veh	0.0	4.7	11.5							3.9	1.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.9	14.0							4.8	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.2	35.1							19.3	16.7	0.0
LnGrp LOS	A	C	D							B	B	A
Approach Vol, veh/h		2697									1082	
Approach Delay, s/veh		30.1									17.6	
Approach LOS		C									B	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		33.0	27.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		28.1	22.1									
Max Q Clear Time (g_c+l1), s		25.8	12.7									
Green Ext Time (p_c), s		1.9	2.4									
Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TTH						2TTH				
Traffic Volume (veh/h)	119	2862	0	0	0	0	0	136	189	0	0	0
Future Volume (veh/h)	119	2862	0	0	0	0	0	136	189	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	128	3077	0				0	146	203			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	133	3442	0				0	536	449			
Arrive On Green	0.18	0.18	0.00				0.00	0.30	0.30			
Sat Flow, veh/h	249	6696	0				0	1870	1488			
Grp Volume(v), veh/h	955	2250	0				0	146	203			
Grp Sat Flow(s),veh/h/ln	1858	1609	0				0	1777	1488			
Q Serve(g_s), s	30.6	27.2	0.0				0.0	3.8	6.6			
Cycle Q Clear(g_c), s	30.6	27.2	0.0				0.0	3.8	6.6			
Prop In Lane	0.13		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	994	2582	0				0	536	449			
V/C Ratio(X)	0.96	0.87	0.00				0.00	0.27	0.45			
Avail Cap(c_a), veh/h	994	2582	0				0	536	449			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	24.1	22.7	0.0				0.0	15.9	16.9			
Incr Delay (d2), s/veh	20.5	4.4	0.0				0.0	1.3	3.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.4	12.4	0.0				0.0	1.6	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	27.1	0.0				0.0	17.2	20.2			
LnGrp LOS	D	C	A				A	B	C			
Approach Vol, veh/h		3205						349				
Approach Delay, s/veh		32.3						18.9				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		37.0						23.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		32.1						18.1				
Max Q Clear Time (g_c+I1), s		32.6						8.6				
Green Ext Time (p_c), s		0.0						1.5				
Intersection Summary												
HCM 6th Ctrl Delay			31.0									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	3096	160	0	0	0	0	0	0	264	711	0
Future Volume (veh/h)	0	3096	160	0	0	0	0	0	0	264	711	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3159	163							269	726	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3252	166							573	1143	0
Arrive On Green	0.00	0.17	0.17							0.32	0.32	0.00
Sat Flow, veh/h	0	6576	322							1781	3647	0
Grp Volume(v), veh/h	0	2405	917							269	726	0
Grp Sat Flow(s),veh/h/ln	0	1609	1810							1781	1777	0
Q Serve(g_s), s	0.0	29.7	30.3							7.2	10.4	0.0
Cycle Q Clear(g_c), s	0.0	29.7	30.3							7.2	10.4	0.0
Prop In Lane	0.00		0.18							1.00		0.00
Lane Grp Cap(c), veh/h	0	2485	932							573	1143	0
V/C Ratio(X)	0.00	0.97	0.98							0.47	0.64	0.00
Avail Cap(c_a), veh/h	0	2485	932							573	1143	0
HCM Platoon Ratio	1.00	0.33	0.33							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	24.4	24.6							16.3	17.3	0.0
Incr Delay (d2), s/veh	0.0	11.9	25.8							2.7	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.1	20.9							3.2	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.3	50.4							19.0	20.0	0.0
LnGrp LOS	A	D	D							B	C	A
Approach Vol, veh/h		3322									995	
Approach Delay, s/veh		40.2									19.8	
Approach LOS		D									B	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		35.8	24.2									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		30.9	19.3									
Max Q Clear Time (g_c+l1), s		32.3	12.4									
Green Ext Time (p_c), s		0.0	3.3									
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑						↑↑				
Traffic Volume (veh/h)	165	2991	0	0	0	0	0	216	125	0	0	0
Future Volume (veh/h)	165	2991	0	0	0	0	0	216	125	0	0	0
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			
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	179	3251	0				0	235	136			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	1211	3472	0				0	464	259			
Arrive On Green	0.68	0.68	0.00				0.00	0.21	0.21			
Sat Flow, veh/h	1781	5274	0				0	2293	1227			
Grp Volume(v), veh/h	179	3251	0				0	188	183			
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1777	1650			
Q Serve(g_s), s	3.2	50.5	0.0				0.0	8.4	8.9			
Cycle Q Clear(g_c), s	3.2	50.5	0.0				0.0	8.4	8.9			
Prop In Lane	1.00		0.00				0.00		0.74			
Lane Grp Cap(c), veh/h	1211	3472	0				0	375	348			
V/C Ratio(X)	0.15	0.94	0.00				0.00	0.50	0.53			
Avail Cap(c_a), veh/h	1211	3472	0				0	375	348			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	5.1	12.7	0.0				0.0	31.3	31.5			
Incr Delay (d2), s/veh	0.3	6.3	0.0				0.0	4.7	5.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.1	17.3	0.0				0.0	4.1	4.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.4	18.9	0.0				0.0	36.0	37.1			
LnGrp LOS	A	B	A				A	D	D			
Approach Vol, veh/h	3430			371								
Approach Delay, s/veh	18.2			36.6								
Approach LOS	B			D								
Timer - Assigned Phs	2			8								
Phs Duration (G+Y+Rc), s	66.1			23.9								
Change Period (Y+Rc), s	4.9			4.9								
Max Green Setting (Gmax), s	61.2			19.0								
Max Q Clear Time (g_c+I1), s	52.5			10.9								
Green Ext Time (p_c), s	8.6			1.4								
Intersection Summary												
HCM 6th Ctrl Delay	20.0											
HCM 6th LOS	C											



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	268	935	8	700	2665	0	9	56	353	0	34	181
Future Volume (veh/h)	268	935	8	700	2665	0	9	56	353	0	34	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	276	964	8	722	2747	0	9	58	0	0	35	187
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	303	1271	557	1389	3126	0	379	205		0	111	153
Arrive On Green	0.17	0.25	0.25	0.40	0.50	0.00	0.11	0.11	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1503	3456	6537	0	3456	1870	1585	0	1870	2578
Grp Volume(v), veh/h	276	964	8	722	2747	0	9	58	0	0	35	187
Grp Sat Flow(s), veh/h/ln	1781	1662	1503	1728	1570	0	1728	1870	1585	0	1870	1289
Q Serve(g_s), s	18.3	21.4	0.4	19.0	46.8	0.0	0.3	3.4	0.0	0.0	2.2	7.1
Cycle Q Clear(g_c), s	18.3	21.4	0.4	19.0	46.8	0.0	0.3	3.4	0.0	0.0	2.2	7.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	303	1271	557	1389	3126	0	379	205		0	111	153
V/C Ratio(X)	0.91	0.76	0.01	0.52	0.88	0.00	0.02	0.28		0.00	0.32	1.23
Avail Cap(c_a), veh/h	350	1271	557	1389	3126	0	1066	577		0	111	153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	41.3	24.3	27.1	26.9	0.0	47.7	49.1	0.0	0.0	54.1	56.5
Incr Delay (d2), s/veh	23.5	4.3	0.0	0.0	0.4	0.0	0.0	0.3	0.0	0.0	1.6	146.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	9.8	9.0	0.2	7.5	16.2	0.0	0.1	1.6	0.0	0.0	1.1	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	72.4	45.6	24.4	27.1	27.3	0.0	47.7	49.3	0.0	0.0	55.7	202.8
LnGrp LOS	E	D	C	C	C	A	D	D		A	E	F
Approach Vol, veh/h	1248			3469			67			222		
Approach Delay, s/veh	51.4			27.2			49.1			179.6		
Approach LOS	D			C			D			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	53.6	36.3		12.0	24.8	65.1		18.1				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	25.4	* 31		7.1	23.6	32.7		37.0				
Max Q Clear Time (g_c+Y), s	21.0	23.4		9.1	20.3	48.8		5.4				
Green Ext Time (p_c), s	0.8	4.8		0.0	0.1	0.0		0.2				

Intersection Summary

HCM 6th Ctrl Delay 40.3

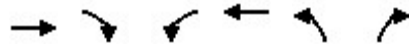
HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3572	91	252	1844	35	346
Future Volume (veh/h)	3572	91	252	1844	35	346
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	3800	97	268	1962	37	368
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	3823	917	862	5612	380	304
Arrive On Green	0.61	0.61	0.25	0.89	0.21	0.21
Sat Flow, veh/h	6537	1506	3456	6537	1781	1427
Grp Volume(v), veh/h	3800	97	268	1962	37	368
Grp Sat Flow(s), veh/h/ln	1570	1506	1728	1570	1781	1427
Q Serve(g_s), s	89.9	4.0	9.5	7.3	2.5	32.0
Cycle Q Clear(g_c), s	89.9	4.0	9.5	7.3	2.5	32.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	3823	917	862	5612	380	304
V/C Ratio(X)	0.99	0.11	0.31	0.35	0.10	1.21
Avail Cap(c_a), veh/h	3823	917	862	5612	380	304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	29.1	12.3	45.8	1.2	47.4	59.0
Incr Delay (d2), s/veh	3.2	0.0	0.1	0.2	0.0	120.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	1.3	4.0	0.7	1.1	21.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	32.3	12.3	45.9	1.4	47.4	179.8
LnGrp LOS	C	B	D	A	D	F
Approach Vol, veh/h	3897			2230	405	
Approach Delay, s/veh	31.8			6.7	167.7	
Approach LOS	C			A	F	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	43.0	96.6		139.6	36.9	
Change Period (Y+Rc), s	5.3	* 5.3		5.3	4.9	
Max Green Setting (Gmax), s	* 91			107.8	32.0	
Max Q Clear Time (g_c+I1), s	91.9			9.3	34.0	
Green Ext Time (p_c), s	0.0	0.0		71.6	0.0	

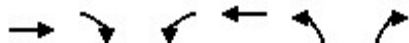
Intersection Summary

HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	3592	4	28	1986	0	19
Future Volume (veh/h)	3592	4	28	1986	0	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.95	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3862	4	30	2135	0	20
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4407	5	38	4543	0	25
Arrive On Green	0.86	0.86	0.02	0.91	0.00	0.02
Sat Flow, veh/h	5307	5	1781	5149	0	1521
Grp Volume(v), veh/h	2495	1371	30	2135	0	21
Grp Sat Flow(s), veh/h/ln	1662	1825	1781	1662	0	1597
Q Serve(g_s), s	57.2	57.4	2.2	8.8	0.0	1.7
Cycle Q Clear(g_c), s	57.2	57.4	2.2	8.8	0.0	1.7
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2848	1564	38	4543	0	26
V/C Ratio(X)	0.88	0.88	0.79	0.47	0.00	0.81
Avail Cap(c_a), veh/h	2852	1566	54	4594	0	218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.4	5.5	64.6	0.9	0.0	65.1
Incr Delay (d2), s/veh	3.9	6.8	26.4	0.3	0.0	42.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lt	0.1	12.4	1.3	0.1	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	12.2	91.0	1.2	0.0	107.7
LnGrp LOS	A	B	F	A	A	F
Approach Vol, veh/h	3866			2165	21	
Approach Delay, s/veh	10.3			2.4	107.7	
Approach LOS	B			A	F	
Timer - Assigned Phs	1	2		6		8
Phs Duration (G+Y+Rc), s	7.2	118.9		126.2		6.6
Change Period (Y+Rc), s	4.4	5.2		5.2		4.4
Max Green Setting (Gmax), s	113.9			122.3		18.1
Max Q Clear Time (g_c+14.2), s	59.4			10.8		3.7
Green Ext Time (p_c), s	0.0	54.4		92.0		0.0

Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	568	0	0	1911	1519
Future Volume (veh/h)	0	568	0	0	1911	1519
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				0.99
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	631			2123	1688
Peak Hour Factor	0.90	0.90			0.90	0.90
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3131	1450
Arrive On Green	0.00	0.00			0.92	0.92
Sat Flow, veh/h	0				3572	1576
Grp Volume(v), veh/h	0.0				2123	1688
Grp Sat Flow(s),veh/h/ln					1702	1576
Q Serve(g_s), s					7.5	51.5
Cycle Q Clear(g_c), s					7.5	51.5
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					3131	1450
V/C Ratio(X)					0.68	1.16
Avail Cap(c_a), veh/h					3131	1450
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	2.3
Incr Delay (d2), s/veh					0.6	81.9
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.3	33.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					1.1	84.1
LnGrp LOS					A	F
Approach Vol, veh/h					3811	
Approach Delay, s/veh					37.9	
Approach LOS					D	
Timer - Assigned Phs					6	
Phs Duration (G+Y+Rc), s					56.0	
Change Period (Y+Rc), s					4.5	
Max Green Setting (Gmax), s					51.5	
Max Q Clear Time (g_c+l1), s					53.5	
Green Ext Time (p_c), s					0.0	
Intersection Summary						
HCM 6th Ctrl Delay			37.9			
HCM 6th LOS			D			
Notes						
User approved volume balancing among the lanes for turning movement.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	264	73	435	596	146	194	376	164	100	366	111
Future Volume (veh/h)	131	264	73	435	596	146	194	376	164	100	366	111
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		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	284	78	468	641	157	209	404	176	108	394	119
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	382	320	500	726	612	240	875	358	136	677	288
Arrive On Green	0.10	0.20	0.20	0.28	0.39	0.39	0.13	0.25	0.25	0.08	0.19	0.19
Sat Flow, veh/h	1781	1870	1569	1781	1870	1576	1781	3512	1436	1781	3554	1513
Grp Volume(v), veh/h	141	284	78	468	641	157	209	391	189	108	394	119
Grp Sat Flow(s),veh/h/ln	1781	1870	1569	1781	1870	1576	1781	1702	1545	1781	1777	1513
Q Serve(g_s), s	7.8	14.3	4.2	25.6	31.9	6.8	11.5	9.7	10.5	6.0	10.1	6.9
Cycle Q Clear(g_c), s	7.8	14.3	4.2	25.6	31.9	6.8	11.5	9.7	10.5	6.0	10.1	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.93	1.00		1.00
Lane Grp Cap(c), veh/h	172	382	320	500	726	612	240	848	385	136	677	288
V/C Ratio(X)	0.82	0.74	0.24	0.94	0.88	0.26	0.87	0.46	0.49	0.79	0.58	0.41
Avail Cap(c_a), veh/h	251	617	518	581	963	812	264	1018	462	276	1087	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	37.4	33.3	35.1	28.5	20.8	42.4	31.9	32.1	45.4	36.9	35.6
Incr Delay (d2), s/veh	8.4	1.1	0.1	20.0	7.7	0.2	22.3	0.7	1.8	3.9	1.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	6.6	1.6	13.8	15.5	2.5	6.4	4.0	4.0	2.7	4.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.8	38.5	33.5	55.1	36.2	21.0	64.7	32.6	34.0	49.4	38.3	37.3
LnGrp LOS	D	D	C	E	D	C	E	C	C	D	D	D
Approach Vol, veh/h	503			1266			789			621		
Approach Delay, s/veh	41.7			41.3			41.4			40.0		
Approach LOS	D			D			D			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	2.0	30.2	32.5	25.3	17.9	24.3	14.0	43.7				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	15.5	29.9	32.6	33.0	14.8	30.6	14.1	51.5				
Max Q Clear Time (g_c+I), s	19.0	12.5	27.6	16.3	13.5	12.1	9.8	33.9				
Green Ext Time (p_c), s	0.1	5.6	0.4	1.2	0.0	4.5	0.1	4.9				

Intersection Summary

HCM 6th Ctrl Delay	41.2
HCM 6th LOS	D

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	49	61	188	18	156	31	531	345	25	967	16
Future Volume (veh/h)	33	49	61	188	18	156	31	531	345	25	967	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		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	52	64	198	19	164	33	559	363	26	1018	17
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	65	148	182	249	50	428	50	1166	730	42	1671	28
Arrive On Green	0.04	0.20	0.20	0.14	0.30	0.30	0.03	0.33	0.33	0.02	0.32	0.32
Sat Flow, veh/h	1781	759	934	1781	166	1435	1781	3554	1549	1781	5169	86
Grp Volume(v), veh/h	35	0	116	198	0	183	33	559	363	26	670	365
Grp Sat Flow(s),veh/h/ln	1781	0	1692	1781	0	1602	1781	1777	1549	1781	1702	1851
Q Serve(g_s), s	1.2	0.0	3.7	6.7	0.0	5.6	1.1	7.8	10.1	0.9	10.3	10.3
Cycle Q Clear(g_c), s	1.2	0.0	3.7	6.7	0.0	5.6	1.1	7.8	10.1	0.9	10.3	10.3
Prop In Lane	1.00		0.55	1.00		0.90	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	65	0	330	249	0	478	50	1166	730	42	1101	598
V/C Ratio(X)	0.54	0.00	0.35	0.79	0.00	0.38	0.66	0.48	0.50	0.63	0.61	0.61
Avail Cap(c_a), veh/h	173	0	848	446	0	1028	115	1184	738	144	1150	625
HCM Platoon Ratio	1.00	1.00	1.00	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	29.3	0.0	21.5	25.7	0.0	17.2	29.8	16.6	11.4	29.9	17.6	17.6
Incr Delay (d2), s/veh	6.7	0.0	0.2	5.7	0.0	0.2	5.5	0.5	0.9	5.6	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.4	3.1	0.0	2.0	0.5	2.9	3.3	0.4	3.7	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	0.0	21.7	31.4	0.0	17.4	35.2	17.1	12.4	35.6	18.5	19.2
LnGrp LOS	D	A	C	C	A	B	D	B	B	D	B	B
Approach Vol, veh/h	151		381			955			1061			
Approach Delay, s/veh	25.1		24.7			15.9			19.2			
Approach LOS	C		C			B			B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	26.0	13.2	16.9	6.1	25.7	6.8	23.3				
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.8	4.4	5.7	4.5	* 4.8				
Max Green Setting (Gmax), s	5.0	* 21	15.5	* 31	4.0	20.9	6.0	* 40				
Max Q Clear Time (g_c+I2, s)	12.9	12.1	8.7	5.7	3.1	12.3	3.2	7.6				
Green Ext Time (p_c), s	0.0	4.8	0.3	0.4	0.0	4.2	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

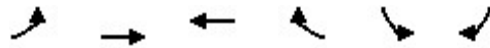
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↗	↖	↗
Traffic Volume (veh/h)	1432	2908	3327	14	0	113
Future Volume (veh/h)	1432	2908	3327	14	0	113
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1507	3061	3502	0	0	119
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1557	3020	2648		115	594
Arrive On Green	0.31	0.87	0.53	0.00	0.00	0.06
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1507	3061	3502	0	0	119
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	44.4	130.6	79.7	0.0	0.0	7.6
Cycle Q Clear(g_c), s	44.4	130.6	79.7	0.0	0.0	7.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1557	3020	2648		115	594
V/C Ratio(X)	0.97	1.01	1.32		0.00	0.20
Avail Cap(c_a), veh/h	1561	3020	2648		202	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.00	0.00	1.00
Uniform Delay (d), s/veh	51.0	9.7	35.2	0.0	0.0	31.7
Incr Delay (d2), s/veh	15.7	19.8	145.3	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.4	30.0	65.7	0.0	0.0	8.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	66.7	29.5	180.4	0.0	0.0	31.9
LnGrp LOS	E	F	F		A	C
Approach Vol, veh/h		4568	3502	A	119	
Approach Delay, s/veh		41.8	180.4		31.9	
Approach LOS		D	F		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		135.9		14.1	50.9	85.0
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	46.6	* 73
Max Q Clear Time (g_c+I1), s		132.6		9.6	46.4	81.7
Green Ext Time (p_c), s		0.0		0.2	0.1	0.0
Intersection Summary						
HCM 6th Ctrl Delay			100.9			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↓		↖↗	↑↓		↖	↑	↗	↖	↑↑	↗↖
Traffic Volume (veh/h)	449	1211	93	74	1310	75	169	357	74	66	213	849
Future Volume (veh/h)	449	1211	93	74	1310	75	169	357	74	66	213	849
Initial Q (Qb), 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		0.95	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	458	1236	95	76	1337	77	172	364	76	67	217	866
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	1623	125	713	2541	146	182	398	319	160	711	916
Arrive On Green	0.15	0.49	0.49	0.40	0.74	0.74	0.10	0.21	0.21	0.09	0.20	0.20
Sat Flow, veh/h	3456	3343	257	1781	3412	196	1781	1870	1499	1781	3554	2535
Grp Volume(v), veh/h	458	656	675	76	695	719	172	364	76	67	217	866
Grp Sat Flow(s), veh/h/ln	1728	1777	1823	1781	1777	1832	1781	1870	1499	1781	1777	1267
Q Serve(g_s), s	18.9	43.6	43.9	3.9	23.8	23.9	13.9	27.6	6.1	5.2	7.5	29.0
Cycle Q Clear(g_c), s	18.9	43.6	43.9	3.9	23.8	23.9	13.9	27.6	6.1	5.2	7.5	29.0
Prop In Lane	1.00		0.14	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	863	885	713	1323	1364	182	398	319	160	711	916
V/C Ratio(X)	0.91	0.76	0.76	0.11	0.53	0.53	0.95	0.91	0.24	0.42	0.31	0.95
Avail Cap(c_a), veh/h	539	863	885	713	1323	1364	182	455	365	160	711	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(I)	1.00	1.00	1.00	0.62	0.62	0.62	0.98	0.98	0.98	0.79	0.79	0.79
Uniform Delay (d), s/veh	60.9	30.4	30.5	27.3	7.8	7.8	64.7	55.8	47.3	62.4	49.4	110.0
Incr Delay (d2), s/veh	18.2	6.3	6.2	0.2	0.9	0.9	50.0	21.2	0.4	0.5	0.3	15.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	9.5	19.6	20.1	1.7	8.3	8.6	8.8	15.3	2.3	2.4	3.4	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	79.1	36.7	36.7	27.5	8.7	8.7	114.7	77.0	47.7	62.9	49.7	125.4
LnGrp LOS	E	D	D	C	A	A	F	E	D	E	D	F
Approach Vol, veh/h	1789			1490			612			1150		
Approach Delay, s/veh	47.5			9.7			84.0			107.5		
Approach LOS	D			A			F			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	35.8	65.2	75.6	19.2	34.0	25.6	115.2				
Change Period (Y+Rc), s	4.4	4.9	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	8.6	35.3	11.8	* 70	14.8	29.0	22.6	59.0				
Max Q Clear Time (g_c+11), s	29.6	29.6	5.9	45.9	15.9	31.0	20.9	25.9				
Green Ext Time (p_c), s	0.0	1.3	0.0	13.1	0.0	0.0	0.3	10.3				

Intersection Summary

HCM 6th Ctrl Delay	54.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑						↑↑	↵↵
Traffic Volume (veh/h)	0	1129	112	87	184	0	0	0	0	383	500	1308
Future Volume (veh/h)	0	1129	112	87	184	0	0	0	0	383	500	1308
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		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1227	122	95	200	0				416	543	1422
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2529	251	90	3037	0				655	956	1219
Arrive On Green	0.00	0.77	0.77	0.05	0.85	0.00				0.45	0.45	0.45
Sat Flow, veh/h	0	3358	324	1781	3647	0				1454	2121	2705
Grp Volume(v), veh/h	0	666	683	95	200	0				514	445	1422
Grp Sat Flow(s),veh/h/ln	0	1777	1811	1781	1777	0				1798	1777	1353
Q Serve(g_s), s	0.0	20.3	20.4	7.6	1.3	0.0				33.0	27.5	67.6
Cycle Q Clear(g_c), s	0.0	20.3	20.4	7.6	1.3	0.0				33.0	27.5	67.6
Prop In Lane	0.00		0.18	1.00		0.00				0.81		1.00
Lane Grp Cap(c), veh/h	0	1376	1403	90	3037	0				810	801	1219
V/C Ratio(X)	0.00	0.48	0.49	1.05	0.07	0.00				0.63	0.56	1.17
Avail Cap(c_a), veh/h	0	1376	1403	90	3037	0				810	801	1219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.63	0.63	0.36	0.36	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	6.1	6.1	71.2	1.7	0.0				31.7	30.2	41.2
Incr Delay (d2), s/veh	0.0	0.8	0.8	71.3	0.0	0.0				3.8	2.8	84.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.8	6.9	5.2	0.3	0.0				15.4	12.6	36.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.9	6.9	142.5	1.7	0.0				35.5	33.0	125.3
LnGrp LOS	A	A	A	F	A	A				D	C	F
Approach Vol, veh/h		1349			295						2381	
Approach Delay, s/veh		6.9			47.1						88.7	
Approach LOS		A			D						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	124.5			73.0		136.5						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	7.6	* 60		67.6		70.4						
Max Q Clear Time (g_c+I), s	19.6	22.4		69.6		3.3						
Green Ext Time (p_c), s	0.0	3.0		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	58.2
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑									↑↑↑↑	
Traffic Volume (veh/h)	0	2825	117	0	0	0	0	0	0	258	583	0
Future Volume (veh/h)	0	2825	117	0	0	0	0	0	0	258	583	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2912	121							266	601	0
Peak Hour Factor	0.97	0.97	0.97							0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3246	134							508	1260	0
Arrive On Green	0.00	0.17	0.17							0.34	0.34	0.00
Sat Flow, veh/h	0	6637	263							1495	3873	0
Grp Volume(v), veh/h	0	2199	834							319	548	0
Grp Sat Flow(s),veh/h/ln	0	1609	1812							1796	1702	0
Q Serve(g_s), s	0.0	29.0	29.3							9.3	8.2	0.0
Cycle Q Clear(g_c), s	0.0	29.0	29.3							9.3	8.2	0.0
Prop In Lane	0.00		0.15							0.83		0.00
Lane Grp Cap(c), veh/h	0	2457	923							611	1157	0
V/C Ratio(X)	0.00	0.89	0.90							0.52	0.47	0.00
Avail Cap(c_a), veh/h	0	2457	923							611	1157	0
HCM Platoon Ratio	1.00	0.33	0.33							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	25.3	25.5							17.2	16.9	0.0
Incr Delay (d2), s/veh	0.0	5.6	13.9							3.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.4	17.4							4.1	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.9	39.3							20.4	18.3	0.0
LnGrp LOS	A	C	D							C	B	A
Approach Vol, veh/h		3033									867	
Approach Delay, s/veh		33.2									19.1	
Approach LOS		C									B	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		38.0	27.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		33.1	22.1									
Max Q Clear Time (g_c+l1), s		31.3	11.3									
Green Ext Time (p_c), s		1.5	2.0									
Intersection Summary												
HCM 6th Ctrl Delay			30.1									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet
Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	3269	0	0	0	0	0	146	200	0	0	0
Future Volume (veh/h)	161	3269	0	0	0	0	0	146	200	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.91			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	166	3370	0				0	151	206			
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	166	3627	0				0	500	407			
Arrive On Green	0.19	0.19	0.00				0.00	0.28	0.28			
Sat Flow, veh/h	292	6651	0				0	1870	1445			
Grp Volume(v), veh/h	1054	2482	0				0	151	206			
Grp Sat Flow(s),veh/h/ln	1856	1609	0				0	1777	1445			
Q Serve(g_s), s	36.9	32.7	0.0				0.0	4.3	7.8			
Cycle Q Clear(g_c), s	36.9	32.7	0.0				0.0	4.3	7.8			
Prop In Lane	0.16		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1053	2739	0				0	500	407			
V/C Ratio(X)	1.00	0.91	0.00				0.00	0.30	0.51			
Avail Cap(c_a), veh/h	1053	2739	0				0	500	407			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	26.4	24.7	0.0				0.0	18.3	19.6			
Incr Delay (d2), s/veh	27.9	5.6	0.0				0.0	1.5	4.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.0	15.1	0.0				0.0	1.9	3.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.3	30.3	0.0				0.0	19.9	24.0			
LnGrp LOS	F	C	A				A	B	C			
Approach Vol, veh/h		3536						357				
Approach Delay, s/veh		37.5						22.3				
Approach LOS		D						C				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		41.8						23.2				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		36.9						18.3				
Max Q Clear Time (g_c+I1), s		38.9						9.8				
Green Ext Time (p_c), s		0.0						1.5				
Intersection Summary												
HCM 6th Ctrl Delay			36.1									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	3502	188	0	0	0	0	0	0	195	476	0
Future Volume (veh/h)	0	3502	188	0	0	0	0	0	0	195	476	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3573	192							199	486	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3479	183							529	1055	0
Arrive On Green	0.00	0.18	0.18							0.30	0.30	0.00
Sat Flow, veh/h	0	6561	330							1781	3647	0
Grp Volume(v), veh/h	0	2717	1048							199	486	0
Grp Sat Flow(s),veh/h/ln	0	1609	1804							1781	1777	0
Q Serve(g_s), s	0.0	35.9	35.9							5.7	7.2	0.0
Cycle Q Clear(g_c), s	0.0	35.9	35.9							5.7	7.2	0.0
Prop In Lane	0.00		0.18							1.00		0.00
Lane Grp Cap(c), veh/h	0	2665	996							529	1055	0
V/C Ratio(X)	0.00	1.02	1.05							0.38	0.46	0.00
Avail Cap(c_a), veh/h	0	2665	996							529	1055	0
HCM Platoon Ratio	1.00	0.33	0.33							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.6	26.6							18.1	18.6	0.0
Incr Delay (d2), s/veh	0.0	22.5	43.2							2.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.5	28.8							2.5	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.1	69.8							20.1	20.1	0.0
LnGrp LOS	A	F	F							C	C	A
Approach Vol, veh/h		3765									685	
Approach Delay, s/veh		54.8									20.1	
Approach LOS		D									C	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		40.8	24.2									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		35.9	19.3									
Max Q Clear Time (g_c+l1), s		37.9	9.2									
Green Ext Time (p_c), s		0.0	2.9									
Intersection Summary												
HCM 6th Ctrl Delay			49.5									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: Airport PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑						↑↑				
Traffic Volume (veh/h)	119	3394	0	0	0	0	0	175	105	0	0	0
Future Volume (veh/h)	119	3394	0	0	0	0	0	175	105	0	0	0
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			
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	125	3573	0				0	184	111			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	1268	3636	0				0	413	237			
Arrive On Green	0.71	0.71	0.00				0.00	0.19	0.19			
Sat Flow, veh/h	1781	5274	0				0	2267	1249			
Grp Volume(v), veh/h	125	3573	0				0	149	146			
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1777	1646			
Q Serve(g_s), s	2.2	67.1	0.0				0.0	7.4	7.9			
Cycle Q Clear(g_c), s	2.2	67.1	0.0				0.0	7.4	7.9			
Prop In Lane	1.00		0.00				0.00		0.76			
Lane Grp Cap(c), veh/h	1268	3636	0				0	338	313			
V/C Ratio(X)	0.10	0.98	0.00				0.00	0.44	0.47			
Avail Cap(c_a), veh/h	1268	3636	0				0	338	313			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	4.5	13.8	0.0				0.0	35.8	36.0			
Incr Delay (d2), s/veh	0.2	11.4	0.0				0.0	4.1	5.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	24.2	0.0				0.0	3.6	3.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.6	25.2	0.0				0.0	39.9	41.0			
LnGrp LOS	A	C	A				A	D	D			
Approach Vol, veh/h	3698			295								
Approach Delay, s/veh	24.5			40.4								
Approach LOS	C			D								
Timer - Assigned Phs	2			8								
Phs Duration (G+Y+Rc), s	76.1			23.9								
Change Period (Y+Rc), s	4.9			4.9								
Max Green Setting (Gmax), s	71.2			19.0								
Max Q Clear Time (g_c+I1), s	69.1			9.9								
Green Ext Time (p_c), s	2.1			1.2								
Intersection Summary												
HCM 6th Ctrl Delay	25.7											
HCM 6th LOS	C											



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↑	↱		↰	↱
Traffic Volume (veh/h)	304	780	8	608	2485	0	9	96	366	0	36	191
Future Volume (veh/h)	304	780	8	608	2485	0	9	96	366	0	36	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	867	9	676	2761	0	10	107	0	0	40	212
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	363	1429	553	1402	3138	0	256	139		0	111	154
Arrive On Green	0.20	0.29	0.29	0.41	0.50	0.00	0.07	0.07	0.00	0.00	0.06	0.06
Sat Flow, veh/h	1781	4985	1519	3456	6537	0	3456	1870	1585	0	1870	2606
Grp Volume(v), veh/h	338	867	9	676	2761	0	10	107	0	0	40	212
Grp Sat Flow(s), veh/h/ln	1781	1662	1519	1728	1570	0	1728	1870	1585	0	1870	1303
Q Serve(g_s), s	22.4	18.0	0.5	17.3	47.1	0.0	0.3	6.7	0.0	0.0	2.5	7.1
Cycle Q Clear(g_c), s	22.4	18.0	0.5	17.3	47.1	0.0	0.3	6.7	0.0	0.0	2.5	7.1
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	363	1429	553	1402	3138	0	256	139		0	111	154
V/C Ratio(X)	0.93	0.61	0.02	0.48	0.88	0.00	0.04	0.77		0.00	0.36	1.38
Avail Cap(c_a), veh/h	380	1429	553	1402	3138	0	1066	577		0	111	154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.98	0.98	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	46.9	37.0	24.7	26.3	26.8	0.0	51.6	54.6	0.0	0.0	54.3	56.5
Incr Delay (d2), s/veh	28.0	1.9	0.1	0.0	0.4	0.0	0.0	3.3	0.0	0.0	2.0	204.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.4	7.3	0.2	6.8	16.2	0.0	0.1	3.3	0.0	0.0	1.2	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.0	38.9	24.7	26.3	27.2	0.0	51.6	57.9	0.0	0.0	56.2	260.6
LnGrp LOS	E	D	C	C	C	A	D	E		A	E	F
Approach Vol, veh/h	1214			3437			117			252		
Approach Delay, s/veh	48.8			27.0			57.3			228.2		
Approach LOS	D			C			E			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	54.1	40.1		12.0	28.9	65.3		13.8				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	21.6	* 34		7.1	25.6	30.7		37.0				
Max Q Clear Time (g_c+119, s)	19.3	20.0		9.1	24.4	49.1		8.7				
Green Ext Time (p_c), s	0.4	7.6		0.0	0.1	0.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay 43.1

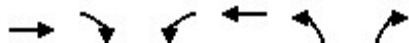
HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	3924	91	239	1403	70	249
Future Volume (veh/h)	3924	91	239	1403	70	249
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.94	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	4045	94	246	1446	72	257
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4014	949	247	4646	343	274
Arrive On Green	0.64	0.64	0.07	0.74	0.19	0.19
Sat Flow, veh/h	6537	1485	3456	6537	1781	1427
Grp Volume(v), veh/h	4045	94	246	1446	72	257
Grp Sat Flow(s), veh/h/ln	1570	1485	1728	1570	1781	1427
Q Serve(g_s), s	95.9	3.7	10.7	11.7	5.1	26.6
Cycle Q Clear(g_c), s	95.9	3.7	10.7	11.7	5.1	26.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4014	949	247	4646	343	274
V/C Ratio(X)	1.01	0.10	1.00	0.31	0.21	0.94
Avail Cap(c_a), veh/h	4014	949	247	4646	380	304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	27.1	10.4	69.6	6.6	51.0	59.7
Incr Delay (d2), s/veh	6.4	0.0	56.1	0.2	0.1	32.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	33.7	1.2	6.6	3.5	2.3	12.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.4	10.5	125.8	6.8	51.1	92.1
LnGrp LOS	F	B	F	A	D	F
Approach Vol, veh/h	4139			1692	329	
Approach Delay, s/veh	32.9			24.1	83.1	
Approach LOS	C			C	F	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	51.1	101.2		116.3	33.7	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	101.2	92.7		107.8	32.0	
Max Q Clear Time (g_c+I12), s	97.9			13.7	28.6	
Green Ext Time (p_c), s	0.0	0.0		43.4	0.2	
Intersection Summary						
HCM 6th Ctrl Delay			33.2			
HCM 6th LOS			C			
Notes						
User approved pedestrian interval to be less than phase max green.						

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↘	↑↑↑	↘	
Traffic Volume (veh/h)	3836	12	25	1281	0	27
Future Volume (veh/h)	3836	12	25	1281	0	27
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.93	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	3955	12	26	1321	0	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4380	13	33	4515	0	34
Arrive On Green	0.85	0.85	0.02	0.91	0.00	0.02
Sat Flow, veh/h	5294	16	1781	5149	0	1538
Grp Volume(v), veh/h	2560	1407	26	1321	0	29
Grp Sat Flow(s),veh/h/ln	1662	1822	1781	1662	0	1593
Q Serve(g_s), s	65.0	65.7	1.9	4.5	0.0	2.4
Cycle Q Clear(g_c), s	65.0	65.7	1.9	4.5	0.0	2.4
Prop In Lane		0.01	1.00		0.00	0.97
Lane Grp Cap(c), veh/h	2838	1556	33	4515	0	35
V/C Ratio(X)	0.90	0.90	0.79	0.29	0.00	0.83
Avail Cap(c_a), veh/h	2841	1557	59	4592	0	219
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.2	6.2	64.8	0.8	0.0	64.6
Incr Delay (d2), s/veh	5.0	8.6	13.9	0.1	0.0	36.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	15.0	1.0	0.1	0.0	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	14.8	78.8	0.9	0.0	101.1
LnGrp LOS	B	B	E	A	A	F
Approach Vol, veh/h	3967			1347	29	
Approach Delay, s/veh	12.4			2.4	101.1	
Approach LOS	B			A	F	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.9	118.5		125.3	7.3	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	4.4	113.4		122.2	18.2	
Max Q Clear Time (g_c+I1), s	3.9	67.7		6.5	4.4	
Green Ext Time (p_c), s	0.0	45.6		44.6	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			10.4			
HCM 6th LOS			B			

SDCRAA ADP EIR
41: Kettner Blvd & Palm St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet
Timing Plan: Airport PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	↑↑
Traffic Volume (veh/h)	0	823	0	0	1560	1503
Future Volume (veh/h)	0	823	0	0	1560	1503
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	876			1660	1599
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			2990	1388
Arrive On Green	0.00	0.00			0.88	0.88
Sat Flow, veh/h	0				3572	1581
Grp Volume(v), veh/h	0.0				1660	1599
Grp Sat Flow(s),veh/h/ln					1702	1581
Q Serve(g_s), s					4.3	32.5
Cycle Q Clear(g_c), s					4.3	32.5
Prop In Lane						1.00
Lane Grp Cap(c), veh/h					2990	1388
V/C Ratio(X)					0.56	1.15
Avail Cap(c_a), veh/h					2990	1388
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.5	2.3
Incr Delay (d2), s/veh					0.2	77.0
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.1	29.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					0.8	79.3
LnGrp LOS					A	F
Approach Vol, veh/h					3259	
Approach Delay, s/veh					39.3	
Approach LOS					D	
Timer - Assigned Phs						6
Phs Duration (G+Y+Rc), s						37.0
Change Period (Y+Rc), s						4.5
Max Green Setting (Gmax), s						32.5
Max Q Clear Time (g_c+I1), s						34.5
Green Ext Time (p_c), s						0.0
Intersection Summary						
HCM 6th Ctrl Delay			39.3			
HCM 6th LOS			D			
Notes						
User approved volume balancing among the lanes for turning movement.						

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	268	91	352	413	153	167	549	86	274	1268	87
Future Volume (veh/h)	142	268	91	352	413	153	167	549	86	274	1268	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	285	97	374	439	163	178	584	91	291	1349	93
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	176	331	280	352	516	436	173	830	127	509	1358	603
Arrive On Green	0.10	0.18	0.18	0.20	0.28	0.28	0.10	0.19	0.19	0.29	0.38	0.38
Sat Flow, veh/h	1781	1870	1580	1781	1870	1582	1781	4459	684	1781	3554	1577
Grp Volume(v), veh/h	151	285	97	374	439	163	178	444	231	291	1349	93
Grp Sat Flow(s),veh/h/ln	1781	1870	1580	1781	1870	1582	1781	1702	1738	1781	1777	1577
Q Serve(g_s), s	10.9	19.2	7.0	25.7	28.9	5.4	12.6	15.9	16.2	18.1	49.2	5.0
Cycle Q Clear(g_c), s	10.9	19.2	7.0	25.7	28.9	5.4	12.6	15.9	16.2	18.1	49.2	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	176	331	280	352	516	436	173	634	324	509	1358	603
V/C Ratio(X)	0.86	0.86	0.35	1.06	0.85	0.37	1.03	0.70	0.71	0.57	0.99	0.15
Avail Cap(c_a), veh/h	219	475	401	352	614	519	173	882	450	509	1358	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	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	57.7	51.9	46.9	52.2	44.5	9.4	58.7	49.5	49.7	39.6	40.0	26.4
Incr Delay (d2), s/veh	20.0	7.8	0.3	65.5	9.6	0.5	77.0	2.6	5.6	1.0	22.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	9.8	2.8	17.9	14.9	4.1	9.3	6.9	7.5	8.0	25.2	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.7	59.8	47.2	117.6	54.1	9.9	135.7	52.2	55.3	40.6	62.8	26.6
LnGrp LOS	E	E	D	F	D	A	F	D	E	D	E	C
Approach Vol, veh/h		533			976			853			1733	
Approach Delay, s/veh		62.6			71.1			70.4			57.1	
Approach LOS		E			E			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	42.5	29.5	30.1	27.9	17.0	55.0	17.3	40.8				
Change Period (Y+Rc), s	5.3	* 5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	28.6	* 34	25.7	33.0	12.6	49.7	16.0	42.7				
Max Q Clear Time (g_c+I1), s	20.1	18.2	27.7	21.2	14.6	51.2	12.9	30.9				
Green Ext Time (p_c), s	0.3	6.0	0.0	1.1	0.0	0.0	0.1	2.7				

Intersection Summary

HCM 6th Ctrl Delay 63.9

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	72	53	157	5	21	28	639	591	369	1658	17
Future Volume (veh/h)	37	72	53	157	5	21	28	639	591	369	1658	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	84	62	183	6	24	33	743	687	429	1928	20
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	141	104	219	75	301	41	1053	660	460	2769	29
Arrive On Green	0.03	0.14	0.14	0.12	0.23	0.23	0.02	0.30	0.30	0.26	0.53	0.53
Sat Flow, veh/h	1781	992	732	1781	324	1297	1781	3554	1571	1781	5210	54
Grp Volume(v), veh/h	43	0	146	183	0	30	33	743	687	429	1259	689
Grp Sat Flow(s),veh/h/ln	1781	0	1724	1781	0	1621	1781	1777	1571	1781	1702	1860
Q Serve(g_s), s	2.6	0.0	8.6	10.8	0.0	1.6	2.0	20.1	32.0	25.4	29.7	29.7
Cycle Q Clear(g_c), s	2.6	0.0	8.6	10.8	0.0	1.6	2.0	20.1	32.0	25.4	29.7	29.7
Prop In Lane	1.00		0.42	1.00		0.80	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	60	0	246	219	0	376	41	1053	660	460	1809	989
V/C Ratio(X)	0.72	0.00	0.59	0.84	0.00	0.08	0.80	0.71	1.04	0.93	0.70	0.70
Avail Cap(c_a), veh/h	152	0	495	536	0	803	66	1053	660	604	2015	1101
HCM Platoon Ratio	1.00	1.00	1.00	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	51.7	0.0	43.4	46.3	0.0	32.4	52.5	33.8	31.4	39.1	18.8	18.8
Incr Delay (d2), s/veh	14.9	0.0	0.9	8.2	0.0	0.0	12.0	2.6	46.0	16.3	0.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	3.7	5.3	0.0	0.6	1.0	8.8	25.2	12.9	11.2	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.6	0.0	44.2	54.4	0.0	32.5	64.5	36.3	77.3	55.4	19.7	20.5
LnGrp LOS	E	A	D	D	A	C	E	D	F	E	B	C
Approach Vol, veh/h	189			213			1463			2377		
Approach Delay, s/veh	49.3			51.4			56.2			26.4		
Approach LOS	D			D			E			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	32.3	37.7	17.8	20.2	6.9	63.1	8.1	29.8				
Change Period (Y+Rc), s	4.4	* 5.7	4.5	* 4.8	4.4	5.7	4.5	* 4.8				
Max Green Setting (Gmax), s	36.6	* 32	32.5	* 31	4.0	63.9	9.2	* 54				
Max Q Clear Time (g_c+T), s	27.4	34.0	12.8	10.6	4.0	31.7	4.6	3.6				
Green Ext Time (p_c), s	0.5	0.0	0.5	0.5	0.0	18.5	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

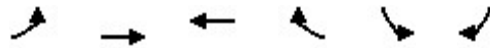
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←←	↑↑	↑↑↑	↗	↖	↗
Traffic Volume (veh/h)	1863	3459	2878	40	0	74
Future Volume (veh/h)	1863	3459	2878	40	0	74
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1941	3603	2998	0	0	77
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1795	3096	2521		76	634
Arrive On Green	0.36	0.89	0.51	0.00	0.00	0.04
Sat Flow, veh/h	5023	3561	5149	1585	1781	1585
Grp Volume(v), veh/h	1941	3603	2998	0	0	77
Grp Sat Flow(s),veh/h/ln	1674	1735	1662	1585	1781	1585
Q Serve(g_s), s	53.6	133.9	75.9	0.0	0.0	4.6
Cycle Q Clear(g_c), s	53.6	133.9	75.9	0.0	0.0	4.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1795	3096	2521		76	634
V/C Ratio(X)	1.08	1.16	1.19		0.00	0.12
Avail Cap(c_a), veh/h	1795	3096	2521		202	746
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.22	0.00	0.00	1.00
Uniform Delay (d), s/veh	48.2	8.1	37.1	0.0	0.0	28.4
Incr Delay (d2), s/veh	47.0	77.6	86.1	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.4	46.9	49.1	0.0	0.0	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	95.2	85.7	123.2	0.0	0.0	28.4
LnGrp LOS	F	F	F		A	C
Approach Vol, veh/h		5544	2998	A	77	
Approach Delay, s/veh		89.0	123.2		28.4	
Approach LOS		F	F		C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		139.2		10.8	58.0	81.2
Change Period (Y+Rc), s		5.3		4.4	4.4	* 5.3
Max Green Setting (Gmax), s		123.3		17.0	53.6	* 66
Max Q Clear Time (g_c+I1), s		135.9		6.6	55.6	77.9
Green Ext Time (p_c), s		0.0		0.1	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			100.3			
HCM 6th LOS			F			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↑↓		↖↗	↑↓		↖↗	↑	↖↗	↖↗	↑↑	↖↗
Traffic Volume (veh/h)	483	1718	159	179	909	114	159	434	153	202	1091	875
Future Volume (veh/h)	483	1718	159	179	909	114	159	434	153	202	1091	875
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	562	1998	185	208	1057	133	185	505	178	235	1269	1017
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1160	2056	187	138	1135	143	126	488	411	150	986	1703
Arrive On Green	0.34	0.62	0.62	0.03	0.12	0.12	0.07	0.26	0.26	0.08	0.28	0.28
Sat Flow, veh/h	3456	3289	299	1781	3175	399	1781	1870	1576	1781	3554	2765
Grp Volume(v), veh/h	562	1064	1119	208	591	599	185	505	178	235	1269	1017
Grp Sat Flow(s),veh/h/ln	1728	1777	1812	1781	1777	1798	1781	1870	1576	1781	1777	1382
Q Serve(g_s), s	19.4	83.9	91.0	11.6	49.4	49.5	10.6	39.1	14.8	12.6	41.6	8.7
Cycle Q Clear(g_c), s	19.4	83.9	91.0	11.6	49.4	49.5	10.6	39.1	14.8	12.6	41.6	8.7
Prop In Lane	1.00		0.17	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1160	1110	1132	138	635	642	126	488	411	150	986	1703
V/C Ratio(X)	0.48	0.96	0.99	1.51	0.93	0.93	1.47	1.04	0.43	1.57	1.29	0.60
Avail Cap(c_a), veh/h	1160	1110	1132	138	635	642	126	488	411	150	986	1703
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	0.97	0.97	0.97	0.64	0.64	0.64
Uniform Delay (d), s/veh	39.5	26.3	27.6	73.1	64.3	64.4	69.7	55.4	51.0	68.7	54.2	19.7
Incr Delay (d2), s/veh	0.3	18.6	24.2	255.5	18.1	18.2	248.3	49.7	0.8	276.4	134.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	38.3	43.6	15.3	26.8	27.2	13.5	25.0	5.9	17.2	36.8	10.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	44.8	51.8	328.6	82.4	82.5	318.0	105.2	51.8	345.1	188.7	20.1
LnGrp LOS	D	D	D	F	F	F	F	F	D	F	F	C
Approach Vol, veh/h	2745		1398				868				2521	
Approach Delay, s/veh	46.7		119.1				139.6				135.3	
Approach LOS	D		F				F				F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	44.0	16.0	99.5	15.0	46.6	56.1	59.4				
Change Period (Y+Rc), s	5.0	* 4.9	4.4	5.2	4.4	5.0	5.2	* 5.8				
Max Green Setting (Gmax), s	12.6	* 39	11.6	67.8	10.6	41.0	25.2	* 54				
Max Q Clear Time (g_c+1/4), s	14.6	41.1	13.6	93.0	12.6	43.6	21.4	51.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.3				

Intersection Summary

HCM 6th Ctrl Delay	100.5
HCM 6th LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↑↑	↔
Traffic Volume (veh/h)	0	1799	231	91	230	0	0	0	0	517	1561	974
Future Volume (veh/h)	0	1799	231	91	230	0	0	0	0	517	1561	974
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1914	246	97	245	0				550	1661	1036
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	2063	259	120	2652	0				371	1206	1205
Arrive On Green	0.00	0.86	0.86	0.07	0.75	0.00				0.44	0.44	0.44
Sat Flow, veh/h	0	3269	399	1781	3647	0				848	2757	2755
Grp Volume(v), veh/h	0	1052	1108	97	245	0				1186	1025	1036
Grp Sat Flow(s),veh/h/ln	0	1777	1797	1781	1777	0				1828	1777	1377
Q Serve(g_s), s	0.0	56.8	69.6	8.1	2.8	0.0				65.6	65.6	50.9
Cycle Q Clear(g_c), s	0.0	56.8	69.6	8.1	2.8	0.0				65.6	65.6	50.9
Prop In Lane	0.00		0.22	1.00		0.00				0.46		1.00
Lane Grp Cap(c), veh/h	0	1154	1168	120	2652	0				799	777	1205
V/C Ratio(X)	0.00	0.91	0.95	0.81	0.09	0.00				1.48	1.32	0.86
Avail Cap(c_a), veh/h	0	1154	1168	126	2652	0				799	777	1205
HCM Platoon Ratio	1.00	1.33	1.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	0.36	0.36	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	7.4	8.3	69.0	5.2	0.0				42.2	42.2	38.1
Incr Delay (d2), s/veh	0.0	1.4	2.3	11.8	0.0	0.0				224.2	152.7	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.5	8.3	4.0	1.0	0.0				79.3	61.6	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	8.8	10.6	80.9	5.2	0.0				266.4	194.9	46.2
LnGrp LOS	A	A	B	F	A	A				F	F	D
Approach Vol, veh/h		2160			342						3247	
Approach Delay, s/veh		9.7			26.7						173.6	
Approach LOS		A			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	4.5	105.2		71.0		119.7						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	4.6	* 59		65.6		72.4						
Max Q Clear Time (g_c+Tb), s	11.0	71.6		67.6		4.8						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5						

Intersection Summary

HCM 6th Ctrl Delay	103.3
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑									↑↑↑↑	
Traffic Volume (veh/h)	0	3219	109	0	0	0	0	0	0	473	1227	0
Future Volume (veh/h)	0	3219	109	0	0	0	0	0	0	473	1227	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3537	120							520	1348	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3511	117							470	1329	0
Arrive On Green	0.00	0.18	0.18							0.11	0.11	0.00
Sat Flow, veh/h	0	6697	215							1362	4013	0
Grp Volume(v), veh/h	0	2640	1017							688	1180	0
Grp Sat Flow(s),veh/h/ln	0	1609	1825							1802	1702	0
Q Serve(g_s), s	0.0	49.1	49.1							31.1	31.1	0.0
Cycle Q Clear(g_c), s	0.0	49.1	49.1							31.1	31.1	0.0
Prop In Lane	0.00		0.12							0.76		0.00
Lane Grp Cap(c), veh/h	0	2633	996							623	1176	0
V/C Ratio(X)	0.00	1.00	1.02							1.11	1.00	0.00
Avail Cap(c_a), veh/h	0	2633	996							623	1176	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	36.9	36.9							39.9	39.9	0.0
Incr Delay (d2), s/veh	0.0	18.2	34.1							68.4	26.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	25.3	33.2							26.8	18.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	55.1	71.0							108.2	66.8	0.0
LnGrp LOS	A	F	F							F	F	A
Approach Vol, veh/h		3657									1868	
Approach Delay, s/veh		59.5									82.1	
Approach LOS		E									F	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		54.0		36.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		49.1		31.1								
Max Q Clear Time (g_c+l1), s		51.1		33.1								
Green Ext Time (p_c), s		0.0		0.0								
Intersection Summary												
HCM 6th Ctrl Delay			67.1									
HCM 6th LOS			E									

SDCRAA ADP EIR
28: India St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4111						22				
Traffic Volume (veh/h)	192	3893	0	0	0	0	0	281	207	0	0	0
Future Volume (veh/h)	192	3893	0	0	0	0	0	281	207	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	211	4278	0				0	309	227			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	192	4196	0				0	452	321			
Arrive On Green	0.22	0.22	0.00				0.00	0.23	0.23			
Sat Flow, veh/h	292	6651	0				0	2022	1367			
Grp Volume(v), veh/h	1341	3148	0				0	284	252			
Grp Sat Flow(s),veh/h/ln	1856	1609	0				0	1777	1519			
Q Serve(g_s), s	59.1	58.6	0.0				0.0	13.1	13.7			
Cycle Q Clear(g_c), s	59.1	58.6	0.0				0.0	13.1	13.7			
Prop In Lane	0.16		0.00				0.00		0.90			
Lane Grp Cap(c), veh/h	1219	3169	0				0	417	356			
V/C Ratio(X)	1.10	0.99	0.00				0.00	0.68	0.71			
Avail Cap(c_a), veh/h	1219	3169	0				0	417	356			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	35.2	35.1	0.0				0.0	31.4	31.6			
Incr Delay (d2), s/veh	57.8	14.5	0.0				0.0	8.7	11.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	48.6	29.2	0.0				0.0	6.6	6.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.1	49.6	0.0				0.0	40.1	42.9			
LnGrp LOS	F	D	A				A	D	D			
Approach Vol, veh/h		4489						536				
Approach Delay, s/veh		62.6						41.4				
Approach LOS		E						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		64.0						26.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		59.1						21.1				
Max Q Clear Time (g_c+l1), s		61.1						15.7				
Green Ext Time (p_c), s		0.0						1.7				
Intersection Summary												
HCM 6th Ctrl Delay			60.3									
HCM 6th LOS			E									

SDCRAA ADP EIR
29: Columbia St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑								↘	↑↑	
Traffic Volume (veh/h)	0	4326	159	0	0	0	0	0	0	475	842	0
Future Volume (veh/h)	0	4326	159	0	0	0	0	0	0	475	842	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	4702	173							516	915	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	4329	156							386	770	0
Arrive On Green	0.00	0.22	0.22							0.07	0.07	0.00
Sat Flow, veh/h	0	6681	232							1781	3647	0
Grp Volume(v), veh/h	0	3513	1362							516	915	0
Grp Sat Flow(s),veh/h/ln	0	1609	1825							1781	1777	0
Q Serve(g_s), s	0.0	60.7	60.7							19.5	19.5	0.0
Cycle Q Clear(g_c), s	0.0	60.7	60.7							19.5	19.5	0.0
Prop In Lane	0.00		0.13							1.00		0.00
Lane Grp Cap(c), veh/h	0	3255	1231							386	770	0
V/C Ratio(X)	0.00	1.08	1.11							1.34	1.19	0.00
Avail Cap(c_a), veh/h	0	3255	1231							386	770	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	35.0	35.0							41.8	41.8	0.0
Incr Delay (d2), s/veh	0.0	42.1	60.0							168.3	97.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	38.6	49.9							27.3	19.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	77.1	95.0							210.1	139.4	0.0
LnGrp LOS	A	F	F							F	F	A
Approach Vol, veh/h		4875									1431	
Approach Delay, s/veh		82.1									164.9	
Approach LOS		F									F	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		65.6		24.4								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		60.7		19.5								
Max Q Clear Time (g_c+l1), s		62.7		21.5								
Green Ext Time (p_c), s		0.0		0.0								
Intersection Summary												
HCM 6th Ctrl Delay			100.9									
HCM 6th LOS			F									

SDCRAA ADP EIR
30: State St & W Grape St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑						↑↑				
Traffic Volume (veh/h)	119	4363	0	0	0	0	0	340	150	0	0	0
Future Volume (veh/h)	119	4363	0	0	0	0	0	340	150	0	0	0
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			
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	140	5133	0				0	400	176			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	1439	4126	0				0	305	133			
Arrive On Green	0.81	0.81	0.00				0.00	0.13	0.13			
Sat Flow, veh/h	1781	5274	0				0	2504	1048			
Grp Volume(v), veh/h	140	5133	0				0	293	283			
Grp Sat Flow(s),veh/h/ln	1781	1702	0				0	1777	1682			
Q Serve(g_s), s	2.5	121.2	0.0				0.0	19.0	19.0			
Cycle Q Clear(g_c), s	2.5	121.2	0.0				0.0	19.0	19.0			
Prop In Lane	1.00		0.00				0.00		0.62			
Lane Grp Cap(c), veh/h	1439	4126	0				0	225	213			
V/C Ratio(X)	0.10	1.24	0.00				0.00	1.30	1.33			
Avail Cap(c_a), veh/h	1439	4126	0				0	225	213			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	3.0	14.4	0.0				0.0	65.5	65.5			
Incr Delay (d2), s/veh	0.1	112.0	0.0				0.0	165.2	175.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	79.6	0.0				0.0	19.0	18.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	126.4	0.0				0.0	230.7	241.0			
LnGrp LOS	A	F	A				A	F	F			
Approach Vol, veh/h	5273			576								
Approach Delay, s/veh	123.2			235.8								
Approach LOS	F			F								
Timer - Assigned Phs	2			8								
Phs Duration (G+Y+Rc), s	126.1			23.9								
Change Period (Y+Rc), s	4.9			4.9								
Max Green Setting (Gmax), s	121.2			19.0								
Max Q Clear Time (g_c+l1), s	123.2			21.0								
Green Ext Time (p_c), s	0.0			0.0								
Intersection Summary												
HCM 6th Ctrl Delay	134.3											
HCM 6th LOS	F											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	1816	5	739	1988	0	5	35	806	0	30	170
Future Volume (veh/h)	233	1816	5	739	1988	0	5	35	806	0	30	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	251	1953	5	795	2138	0	5	38	0	0	32	183
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	268	1741	615	1471	3977	0	134	73		0	87	115
Arrive On Green	0.15	0.35	0.35	0.43	0.63	0.00	0.04	0.04	0.00	0.00	0.05	0.05
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2467
Grp Volume(v), veh/h	251	1953	5	795	2138	0	5	38	0	0	32	183
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1233
Q Serve(g_s), s	20.9	52.4	0.3	25.7	28.4	0.0	0.2	3.0	0.0	0.0	2.5	7.0
Cycle Q Clear(g_c), s	20.9	52.4	0.3	25.7	28.4	0.0	0.2	3.0	0.0	0.0	2.5	7.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	268	1741	615	1471	3977	0	134	73		0	87	115
V/C Ratio(X)	0.94	1.12	0.01	0.54	0.54	0.00	0.04	0.52		0.00	0.37	1.59
Avail Cap(c_a), veh/h	268	1741	615	1471	3977	0	970	525		0	87	115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.00	0.95	0.95	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	63.0	48.8	28.2	32.1	15.3	0.0	69.4	70.7	0.0	0.0	69.3	71.5
Incr Delay (d2), s/veh	37.4	63.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.6	302.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	31.1	0.1	10.5	9.5	0.0	0.1	1.5	0.0	0.0	1.3	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.4	111.8	28.2	32.1	15.4	0.0	69.4	72.8	0.0	0.0	71.9	373.8
LnGrp LOS	F	F	C	C	B	A	E	E		A	E	F
Approach Vol, veh/h		2209			2933			43	A		215	
Approach Delay, s/veh		110.3			19.9			72.4			328.9	
Approach LOS		F			B			E			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	69.3	58.1		11.9	27.0	100.4		10.7				
Change Period (Y+Rc), s	5.4	* 5.7		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	28.6	* 52		7.0	22.6	58.7		42.1				
Max Q Clear Time (g_c+I1), s	27.7	54.4		9.0	22.9	30.4		5.0				
Green Ext Time (p_c), s	0.2	0.0		0.0	0.0	26.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay 69.6

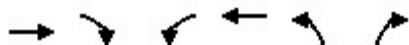
HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



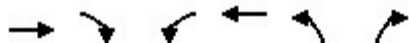
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑	↑	↑↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	4573	52	128	1393	46	171
Future Volume (veh/h)	4573	52	128	1393	46	171
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1870	1870	1826	1870	1870
Adj Flow Rate, veh/h	4917	56	138	1498	49	184
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	2	5	2	2
Cap, veh/h	4387	1105	186	4923	256	205
Arrive On Green	0.70	0.70	0.11	1.00	0.14	0.14
Sat Flow, veh/h	6537	1583	3456	6537	1781	1427
Grp Volume(v), veh/h	4917	56	138	1498	49	184
Grp Sat Flow(s), veh/h/ln	1570	1583	1728	1570	1781	1427
Q Serve(g_s), s	97.8	1.5	5.4	0.0	3.4	17.8
Cycle Q Clear(g_c), s	97.8	1.5	5.4	0.0	3.4	17.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	4387	1105	186	4923	256	205
V/C Ratio(X)	1.12	0.05	0.74	0.30	0.19	0.90
Avail Cap(c_a), veh/h	4387	1105	484	4923	421	337
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	21.1	6.6	61.5	0.0	52.8	59.0
Incr Delay (d2), s/veh	54.7	0.0	2.1	0.2	0.1	10.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/h	46.5	0.5	2.3	0.1	1.6	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	75.9	6.6	63.6	0.2	52.9	69.4
LnGrp LOS	F	A	E	A	D	E
Approach Vol, veh/h	4973			1636	233	
Approach Delay, s/veh	75.1			5.5	66.0	
Approach LOS	E			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	119.6	103.1		115.0	25.0	
Change Period (Y+Rc), s	4.4	5.3		5.3	4.9	
Max Green Setting (Gmax), s	119.6	72.7		96.7	33.1	
Max Q Clear Time (g_c+I1), s	117.4	99.8		2.0	19.8	
Green Ext Time (p_c), s	0.2	0.0		46.3	0.3	

Intersection Summary

HCM 6th Ctrl Delay	58.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑		↵	↑↑↑	↵	
Traffic Volume (veh/h)	4513	1	15	1257	0	18
Future Volume (veh/h)	4513	1	15	1257	0	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1826	1870	1826	1900	1900
Adj Flow Rate, veh/h	4701	1	16	1309	0	19
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	2	5	0	0
Cap, veh/h	4114	1	23	4196	0	114
Arrive On Green	0.80	0.80	0.01	0.84	0.00	0.09
Sat Flow, veh/h	5312	1	1781	5149	0	1217
Grp Volume(v), veh/h	3035	1667	16	1309	0	20
Grp Sat Flow(s), veh/h/ln	1662	1826	1781	1662	0	1281
Q Serve(g_s), s	118.9	118.9	1.3	8.4	0.0	2.1
Cycle Q Clear(g_c), s	118.9	118.9	1.3	8.4	0.0	2.1
Prop In Lane		0.00	1.00		0.00	0.95
Lane Grp Cap(c), veh/h	2656	1459	23	4196	0	120
V/C Ratio(X)	1.14	1.14	0.69	0.31	0.00	0.17
Avail Cap(c_a), veh/h	2656	1459	48	4265	0	156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.9	14.9	73.1	2.5	0.0	62.1
Incr Delay (d2), s/veh	69.2	72.9	12.7	0.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	56.9	64.0	0.7	1.8	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	84.1	87.9	85.9	2.7	0.0	62.7
LnGrp LOS	F	F	F	A	A	E
Approach Vol, veh/h	4702			1325	20	
Approach Delay, s/veh	85.5			3.7	62.7	
Approach LOS	F			A	E	
Timer - Assigned Phs	1	2		6	8	
Phs Duration (G+Y+Rc), s	6.3	124.1		130.4	18.3	
Change Period (Y+Rc), s	4.4	5.2		5.2	4.4	
Max Green Setting (Gmax), s	118.9			127.3	18.1	
Max Q Clear Time (g_c+1/3), s	120.9			10.4	4.1	
Green Ext Time (p_c), s	0.0	0.0		44.0	0.0	
Intersection Summary						
HCM 6th Ctrl Delay			67.5			
HCM 6th LOS			E			

SDCRAA ADP EIR
41: Kettner Blvd & Palm St

Year 2050 with Project (Alt 4) Pacific Hwy Road Diet
Timing Plan: PM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y	Y			↑↑↑	
Traffic Volume (veh/h)	0	1197	0	0	2875	942
Future Volume (veh/h)	0	1197	0	0	2875	942
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach	No				No	
Adj Sat Flow, veh/h/ln	1870	1870			1870	1870
Adj Flow Rate, veh/h	0	1273			3059	1002
Peak Hour Factor	0.94	0.94			0.94	0.94
Percent Heavy Veh, %	2	2			2	2
Cap, veh/h	0	0			3619	1071
Arrive On Green	0.00	0.00			0.93	0.93
Sat Flow, veh/h	0				4078	1157
Grp Volume(v), veh/h	0.0				2621	1440
Grp Sat Flow(s),veh/h/ln					1702	1662
Q Serve(g_s), s					15.1	29.2
Cycle Q Clear(g_c), s					15.1	29.2
Prop In Lane						0.70
Lane Grp Cap(c), veh/h					3151	1539
V/C Ratio(X)					0.83	0.94
Avail Cap(c_a), veh/h					3160	1543
HCM Platoon Ratio					1.00	1.00
Upstream Filter(I)					1.00	1.00
Uniform Delay (d), s/veh					0.7	1.3
Incr Delay (d2), s/veh					2.0	11.1
Initial Q Delay(d3),s/veh					0.0	0.0
%ile BackOfQ(50%),veh/ln					0.9	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh					2.7	12.3
LnGrp LOS					A	B
Approach Vol, veh/h					4061	
Approach Delay, s/veh					6.1	
Approach LOS					A	
Timer - Assigned Phs						6
Phs Duration (G+Y+Rc), s						60.5
Change Period (Y+Rc), s						4.5
Max Green Setting (Gmax), s						56.2
Max Q Clear Time (g_c+l1), s						31.2
Green Ext Time (p_c), s						24.9
Intersection Summary						
HCM 6th Ctrl Delay			6.1			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Construction Phase Conditions for Alt 4

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	187	89	198	163	67	99	131	160	75	102	69
Future Volume (veh/h)	34	187	89	198	163	67	99	131	160	75	102	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	199	95	211	173	71	105	139	170	80	109	73
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1318	662	297	804	632	135	778	473	104	717	309
Arrive On Green	0.03	0.37	0.37	0.09	0.43	0.43	0.08	0.22	0.22	0.06	0.20	0.20
Sat Flow, veh/h	1781	3554	1461	3456	1870	1471	1781	3554	1537	1781	3554	1534
Grp Volume(v), veh/h	36	199	95	211	173	71	105	139	170	80	109	73
Grp Sat Flow(s),veh/h/ln	1781	1777	1461	1728	1870	1471	1781	1777	1537	1781	1777	1534
Q Serve(g_s), s	1.8	3.3	3.4	5.2	5.1	2.5	5.1	2.8	7.6	3.9	2.2	3.5
Cycle Q Clear(g_c), s	1.8	3.3	3.4	5.2	5.1	2.5	5.1	2.8	7.6	3.9	2.2	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	1318	662	297	804	632	135	778	473	104	717	309
V/C Ratio(X)	0.76	0.15	0.14	0.71	0.22	0.11	0.78	0.18	0.36	0.77	0.15	0.24
Avail Cap(c_a), veh/h	607	1615	784	1178	850	668	607	1615	835	607	1615	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	18.5	14.4	39.2	15.7	15.0	39.9	27.9	23.9	40.8	28.9	29.4
Incr Delay (d2), s/veh	8.9	0.1	0.1	1.2	0.1	0.0	3.6	0.1	0.5	4.4	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 BackOfQ(50%),veh/ln	0.9	1.3	1.1	2.2	2.1	0.8	2.3	1.2	2.8	1.8	0.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	18.5	14.5	40.4	15.8	15.1	43.6	28.0	24.4	45.3	29.0	29.6
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		330			455			414			262	
Approach Delay, s/veh		21.0			27.1			30.5			34.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	38.5	12.1	24.5	7.7	43.7	10.5	26.0				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	7.2	5.4	7.1	5.5	3.8	7.1	5.9	9.6				
Green Ext Time (p_c), s	0.4	2.1	0.1	0.6	0.0	0.9	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			27.9									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	↔
Traffic Volume (veh/h)	7	0	6	23	0	35	59	309	28	68	284	21
Future Volume (veh/h)	7	0	6	23	0	35	59	309	28	68	284	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	7	25	0	38	64	336	30	74	309	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	43	122	460	0	363	96	1526	134	106	1580	116
Arrive On Green	0.17	0.00	0.17	0.17	0.00	0.17	0.05	0.32	0.32	0.06	0.33	0.33
Sat Flow, veh/h	555	247	702	1391	0	1547	1781	4765	417	1781	4843	354
Grp Volume(v), veh/h	15	0	0	25	0	38	64	238	128	74	216	116
Grp Sat Flow(s), veh/h/ln	1504	0	0	1391	0	1547	1781	1702	1778	1781	1702	1793
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.6	1.2	1.7	1.7	1.3	1.5	1.5
Cycle Q Clear(g_c), s	0.2	0.0	0.0	0.4	0.0	0.6	1.2	1.7	1.7	1.3	1.5	1.5
Prop In Lane	0.53		0.47	1.00		1.00	1.00		0.23	1.00		0.20
Lane Grp Cap(c), veh/h	428	0	0	460	0	363	96	1090	570	106	1111	585
V/C Ratio(X)	0.04	0.00	0.00	0.05	0.00	0.10	0.67	0.22	0.22	0.70	0.19	0.20
Avail Cap(c_a), veh/h	1917	0	0	1893	0	1974	1623	6205	3241	1623	6205	3268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.0	0.0	11.4	0.0	9.9	15.3	8.2	8.2	15.2	8.0	8.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	0.3	3.0	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.1	0.0	0.2	0.5	0.4	0.5	0.5	0.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	0.0	0.0	11.4	0.0	10.0	18.2	8.3	8.5	18.2	8.1	8.2
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		15			63			430			406	
Approach Delay, s/veh		11.4			10.6			9.8			10.0	
Approach LOS		B			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	15.9		10.6	6.2	16.1		10.6				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.3	3.7		2.2	3.2	3.5		2.6				
Green Ext Time (p_c), s	0.1	3.5		0.0	0.1	2.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	8	22	34	39	11	274	624	93	38	409	173
Future Volume (veh/h)	16	8	22	34	39	11	274	624	93	38	409	173
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.77	1.00		0.76	1.00		0.94	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	17	9	24	37	42	12	295	671	100	41	440	186
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	525	342	47	511	330	336	1599	667	53	712	296
Arrive On Green	0.03	0.28	0.28	0.03	0.27	0.27	0.19	0.45	0.45	0.03	0.30	0.30
Sat Flow, veh/h	1781	1870	1219	1781	1870	1209	1781	3554	1482	1781	2372	988
Grp Volume(v), veh/h	17	9	24	37	42	12	295	671	100	41	328	298
Grp Sat Flow(s), veh/h/ln	1781	1870	1219	1781	1870	1209	1781	1777	1482	1781	1777	1583
Q Serve(g_s), s	1.0	0.4	1.6	2.3	1.8	0.8	17.7	14.0	4.4	2.5	17.4	17.8
Cycle Q Clear(g_c), s	1.0	0.4	1.6	2.3	1.8	0.8	17.7	14.0	4.4	2.5	17.4	17.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	60	525	342	47	511	330	336	1599	667	53	533	475
V/C Ratio(X)	0.28	0.02	0.07	0.78	0.08	0.04	0.88	0.42	0.15	0.78	0.62	0.63
Avail Cap(c_a), veh/h	487	525	342	487	512	331	487	1944	811	487	972	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	28.5	29.0	53.1	29.6	29.3	43.3	20.5	17.8	52.9	32.9	33.1
Incr Delay (d2), s/veh	0.9	0.0	0.0	10.1	0.0	0.0	14.0	0.2	0.1	8.9	3.2	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	0.2	0.5	1.1	0.8	0.2	9.0	5.8	1.5	1.2	7.9	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.6	28.5	29.0	63.2	29.7	29.3	57.2	20.7	17.9	61.7	36.1	36.8
LnGrp LOS	D	C	C	E	C	C	E	C	B	E	D	D
Approach Vol, veh/h	50				91				1066			
Approach Delay, s/veh	36.9				43.2				30.5			
Approach LOS	D				D				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	58.1	7.3	35.7	25.1	41.6	8.1	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.5	16.0	4.3	3.6	19.7	19.8	3.0	3.8				
Green Ext Time (p_c), s	0.0	7.5	0.0	0.1	1.0	10.5	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay 34.0

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	156	14	132	104	0	0	0	0	185	21	29
Future Volume (veh/h)	0	156	14	132	104	0	0	0	0	185	21	29
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	171	15	145	114	0				219	0	32
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	226	450	198	321	613	0				977	0	628
Arrive On Green	0.00	0.13	0.13	0.18	0.18	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1560	1781	3572	0				3563	0	1557
Grp Volume(v), veh/h	0	171	15	145	114	0				219	0	32
Grp Sat Flow(s), veh/h/ln	1781	1777	1560	1781	1702	0				1781	0	1557
Q Serve(g_s), s	0.0	1.5	0.3	2.5	1.0	0.0				1.6	0.0	0.4
Cycle Q Clear(g_c), s	0.0	1.5	0.3	2.5	1.0	0.0				1.6	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	226	450	198	321	613	0				977	0	628
V/C Ratio(X)	0.00	0.38	0.08	0.45	0.19	0.00				0.22	0.00	0.05
Avail Cap(c_a), veh/h	3088	6161	2705	3088	5902	0				3603	0	1776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	13.3	12.7	12.0	0.0				9.7	0.0	6.3
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.1	0.2	0.0				0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.4	0.1	0.8	0.3	0.0				0.5	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.1	13.4	13.8	12.2	0.0				9.8	0.0	6.4
LnGrp LOS	A	B	B	B	B	A				A	A	A
Approach Vol, veh/h	186			259			251					
Approach Delay, s/veh	14.0			13.1			9.3					
Approach LOS	B			B			A					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	8.4			15.7			10.5					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	3.5			3.6			4.5					
Green Ext Time (p_c), s	0.7			0.5			1.7					

Intersection Summary

HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	280	0	0	208	316	26	6	58	20	0	272
Future Volume (veh/h)	74	280	0	0	208	316	26	6	58	20	0	272
Initial Q (Qb), 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		0.97	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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	311	0	0	231	351	29	7	64	22	0	302
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	110	1592	0	0	565	500	145	12	114	26	0	364
Arrive On Green	0.06	0.45	0.00	0.00	0.32	0.32	0.08	0.08	0.08	0.25	0.00	0.25
Sat Flow, veh/h	1781	3647	0	0	1870	1570	1781	154	1407	108	0	1480
Grp Volume(v), veh/h	82	311	0	0	231	351	29	0	71	324	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1570	1781	0	1561	1588	0	0
Q Serve(g_s), s	3.0	3.5	0.0	0.0	6.7	12.9	1.0	0.0	2.9	12.7	0.0	0.0
Cycle Q Clear(g_c), s	3.0	3.5	0.0	0.0	6.7	12.9	1.0	0.0	2.9	12.7	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.90	0.07		0.93
Lane Grp Cap(c), veh/h	110	1592	0	0	565	500	145	0	127	390	0	0
V/C Ratio(X)	0.75	0.20	0.00	0.00	0.41	0.70	0.20	0.00	0.56	0.83	0.00	0.00
Avail Cap(c_a), veh/h	813	3243	0	0	1621	1433	1084	0	950	966	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.4	11.0	0.0	0.0	17.6	19.7	28.2	0.0	29.1	23.5	0.0	0.0
Incr Delay (d2), s/veh	11.6	0.0	0.0	0.0	0.6	2.2	0.3	0.0	1.4	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 BackOfQ(50%),veh/ln	1.5	1.1	0.0	0.0	2.4	4.3	0.4	0.0	1.1	4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.9	11.0	0.0	0.0	18.1	21.9	28.5	0.0	30.5	25.3	0.0	0.0
LnGrp LOS	D	B	A	A	B	C	C	A	C	C	A	A
Approach Vol, veh/h	393				582		100				324	
Approach Delay, s/veh	17.5				20.4		29.9				25.3	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5	6	8					
Phs Duration (G+Y+Rc), s	33.9		20.2		8.5	25.3	11.7					
Change Period (Y+Rc), s	* 4.4		4.0		4.5	4.4	6.4					
Max Green Setting (Gmax), s	* 60		40.0		30.0	60.0	40.0					
Max Q Clear Time (g_c+I1), s	5.5		14.7		5.0	14.9	4.9					
Green Ext Time (p_c), s	1.2		1.5		0.2	4.7	0.3					

Intersection Summary

HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	308	53	297	364	0	0	0	0	379	235	172
Future Volume (veh/h)	0	308	53	297	364	0	0	0	0	379	235	172
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	314	54	303	371	0				387	240	176
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1923	854	383	2503	0				638	335	277
Arrive On Green	0.00	0.54	0.54	0.22	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1546
Grp Volume(v), veh/h	0	314	54	303	371	0				387	240	176
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1546
Q Serve(g_s), s	0.0	3.7	1.4	7.0	0.0	0.0				8.4	10.2	8.9
Cycle Q Clear(g_c), s	0.0	3.7	1.4	7.0	0.0	0.0				8.4	10.2	8.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1923	854	383	2503	0				638	335	277
V/C Ratio(X)	0.00	0.16	0.06	0.79	0.15	0.00				0.61	0.72	0.64
Avail Cap(c_a), veh/h	0	1923	854	703	2503	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.7	9.2	31.8	0.0	0.0				31.8	32.5	31.9
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.4	0.1	0.0				0.3	1.1	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
%ile BackOfQ(50%),veh/ln	0.0	1.3	0.4	2.5	0.0	0.0				3.6	4.6	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.9	9.3	33.2	0.1	0.0				32.1	33.6	32.8
LnGrp LOS	A	A	A	C	A	A				C	C	C
Approach Vol, veh/h		368			674						803	
Approach Delay, s/veh		9.8			15.0						32.7	
Approach LOS		A			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.7	50.4		19.9		64.1						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+19.0)	19.0	5.7		12.2		2.0						
Green Ext Time (p_c), s	0.4	2.0		1.9		2.7						

Intersection Summary

HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
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	↰↱	↑↑			↑↑	↰		↰↱				
Traffic Volume (veh/h)	198	500	0	0	537	538	117	198	25	0	0	0
Future Volume (veh/h)	198	500	0	0	537	538	117	198	25	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	200	505	0	0	542	543	118	200	25			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1292	2725	0	0	1189	519	197	371	46			
Arrive On Green	0.75	1.00	0.00	0.00	0.33	0.33	0.12	0.12	0.12			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1692	3187	394			
Grp Volume(v), veh/h	200	505	0	0	542	543	125	105	113			
Grp Sat Flow(s), veh/h/ln	1728	1777	0	0	1777	1553	1786	1702	1785			
Q Serve(g_s), s	1.4	0.0	0.0	0.0	10.1	28.1	5.6	4.9	5.0			
Cycle Q Clear(g_c), s	1.4	0.0	0.0	0.0	10.1	28.1	5.6	4.9	5.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.95		0.22			
Lane Grp Cap(c), veh/h	1292	2725	0	0	1189	519	208	198	208			
V/C Ratio(X)	0.15	0.19	0.00	0.00	0.46	1.05	0.60	0.53	0.54			
Avail Cap(c_a), veh/h	1292	2725	0	0	1189	519	597	569	597			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.95	0.95	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	6.8	0.0	0.0	0.0	21.9	28.0	35.2	34.9	35.0			
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	1.3	51.8	1.0	0.8	0.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	0.5	0.1	0.0	0.0	4.0	16.8	2.4	2.0	2.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.9	0.1	0.0	0.0	23.2	79.8	36.3	35.8	35.8			
LnGrp LOS	A	A	A	A	C	F	D	D	D			
Approach Vol, veh/h	705			1085			343					
Approach Delay, s/veh	2.0			51.5			36.0					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	69.3			36.3			33.0			14.7		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			3.4			30.1			7.6		
Green Ext Time (p_c), s	4.1			0.4			0.0			1.2		

Intersection Summary

HCM 6th Ctrl Delay 32.7

HCM 6th LOS C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	17	42	12	867	18	0	0	0
Future Volume (veh/h)	0	0	0	0	17	42	12	867	18	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	54	15	1112	23			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	31	76	120	3051	63			
Arrive On Green				0.00	0.06	0.06	0.61	0.61	0.61			
Sat Flow, veh/h				0	478	1174	19	4972	102			
Grp Volume(v), veh/h				0	0	76	422	349	379			
Grp Sat Flow(s),veh/h/ln				0	0	1652	1864	1549	1680			
Q Serve(g_s), s				0.0	0.0	1.6	0.0	3.9	3.9			
Cycle Q Clear(g_c), s				0.0	0.0	1.6	3.9	3.9	3.9			
Prop In Lane				0.00		0.71	0.04		0.06			
Lane Grp Cap(c), veh/h				0	0	107	1252	950	1031			
V/C Ratio(X)				0.00	0.00	0.71	0.34	0.37	0.37			
Avail Cap(c_a), veh/h				0	0	1917	3336	2695	2924			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	15.8	3.3	3.3	3.3			
Incr Delay (d2), s/veh				0.0	0.0	3.3	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.6	0.5	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	19.1	3.6	3.7	3.6			
LnGrp LOS				A	A	B	A	A	A			
Approach Vol, veh/h					76			1150				
Approach Delay, s/veh					19.1			3.6				
Approach LOS					B			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		26.8						7.7				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		5.9						3.6				
Green Ext Time (p_c), s		15.3						0.3				
Intersection Summary												
HCM 6th Ctrl Delay				4.6								
HCM 6th LOS				A								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	142	61	328	265	58	161	232	63	58	250	54
Future Volume (veh/h)	40	142	61	328	265	58	161	232	63	58	250	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	153	66	353	285	62	173	249	68	62	269	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	289	243	411	522	114	220	1044	268	79	761	156
Arrive On Green	0.03	0.15	0.15	0.23	0.35	0.35	0.12	0.26	0.26	0.04	0.18	0.18
Sat Flow, veh/h	1781	1870	1570	1781	1487	323	1781	4023	1032	1781	4221	866
Grp Volume(v), veh/h	43	153	66	353	0	347	173	208	109	62	214	113
Grp Sat Flow(s),veh/h/ln	1781	1870	1570	1781	0	1810	1781	1702	1651	1781	1702	1683
Q Serve(g_s), s	1.5	4.6	2.3	11.6	0.0	9.4	5.8	2.9	3.2	2.1	3.4	3.6
Cycle Q Clear(g_c), s	1.5	4.6	2.3	11.6	0.0	9.4	5.8	2.9	3.2	2.1	3.4	3.6
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.63	1.00		0.51
Lane Grp Cap(c), veh/h	60	289	243	411	0	636	220	883	428	79	614	303
V/C Ratio(X)	0.71	0.53	0.27	0.86	0.00	0.55	0.79	0.24	0.25	0.78	0.35	0.37
Avail Cap(c_a), veh/h	875	1225	1028	875	0	1186	875	3344	1622	875	3344	1653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	29.2	23.8	22.8	22.6	0.0	15.9	26.0	17.8	17.9	28.9	21.9	22.0
Incr Delay (d2), s/veh	5.7	0.6	0.2	2.1	0.0	0.7	2.3	0.3	0.6	6.2	0.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	0.8	4.8	0.0	3.7	2.4	1.1	1.2	1.0	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	24.3	23.0	24.6	0.0	16.6	28.3	18.1	18.5	35.1	22.5	23.3
LnGrp LOS	C	C	C	C	A	B	C	B	B	D	C	C
Approach Vol, veh/h	262			700			490			389		
Approach Delay, s/veh	25.7			20.7			21.8			24.8		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	21.1	18.5	14.3	11.9	16.3	6.5	26.3				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.1	5.2	13.6	6.6	7.8	5.6	3.5	11.4				
Green Ext Time (p_c), s	0.1	3.9	0.5	0.7	0.2	3.9	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	106	157	113	170	0	0	0	0	86	1254	502
Future Volume (veh/h)	0	106	157	113	170	0	0	0	0	86	1254	502
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	120	178	128	193	0				98	1425	570
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	401	340	229	393	0				1129	2274	892
Arrive On Green	0.00	0.21	0.21	0.21	0.21	0.00				0.63	0.63	0.63
Sat Flow, veh/h	0	1870	1585	713	1917	0				1781	3589	1408
Grp Volume(v), veh/h	0	120	178	158	163	0				98	1350	645
Grp Sat Flow(s),veh/h/ln	0	1870	1585	928	1617	0				1781	1702	1593
Q Serve(g_s), s	0.0	4.6	8.5	10.3	7.5	0.0				1.8	20.6	21.3
Cycle Q Clear(g_c), s	0.0	4.6	8.5	14.9	7.5	0.0				1.8	20.6	21.3
Prop In Lane	0.00		1.00	0.81		0.00				1.00		0.88
Lane Grp Cap(c), veh/h	0	401	340	275	346	0				1129	2157	1009
V/C Ratio(X)	0.00	0.30	0.52	0.57	0.47	0.00				0.09	0.63	0.64
Avail Cap(c_a), veh/h	0	657	556	436	568	0				1251	2390	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.2	29.7	33.8	29.3	0.0				6.1	9.5	9.6
Incr Delay (d2), s/veh	0.0	0.2	0.5	1.4	0.7	0.0				0.1	0.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	3.2	3.2	3.0	0.0				0.6	6.7	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.3	30.2	35.2	30.1	0.0				6.1	10.2	11.1
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		298			321						2093	
Approach Delay, s/veh		29.4			32.6						10.3	
Approach LOS		C			C						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				25.0		60.5		25.0				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				10.5		23.3		16.9				
Green Ext Time (p_c), s				0.7		30.9		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			15.0									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	106	18	67	0	34	21	246	851	18	0	0	0
Future Volume (veh/h)	106	18	67	0	34	21	246	851	18	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	112	19	71	0	36	22	259	896	19			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	393	49	1025	0	191	117	840	1676	36			
Arrive On Green	0.18	0.18	0.18	0.00	0.18	0.18	0.47	0.47	0.47			
Sat Flow, veh/h	1002	280	1572	0	1078	659	1781	3555	75			
Grp Volume(v), veh/h	131	0	71	0	0	58	259	448	467			
Grp Sat Flow(s), veh/h/ln	1282	0	1572	0	0	1737	1781	1777	1854			
Q Serve(g_s), s	2.3	0.0	0.0	0.0	0.0	0.9	2.8	5.5	5.5			
Cycle Q Clear(g_c), s	3.1	0.0	0.0	0.0	0.0	0.9	2.8	5.5	5.5			
Prop In Lane	0.85		1.00	0.00		0.38	1.00		0.04			
Lane Grp Cap(c), veh/h	442	0	1025	0	0	307	840	837	874			
V/C Ratio(X)	0.30	0.00	0.07	0.00	0.00	0.19	0.31	0.53	0.53			
Avail Cap(c_a), veh/h	1548	0	2269	0	0	1682	1696	1692	1765			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	11.9	0.0	2.0	0.0	0.0	10.9	5.1	5.8	5.8			
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	0.7	0.0	0.6	0.0	0.0	0.3	0.6	1.1	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.3	0.0	2.0	0.0	0.0	11.0	5.3	6.3	6.3			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		202			58			1174				
Approach Delay, s/veh		8.7			11.0			6.1				
Approach LOS		A			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		19.1		11.9				11.9				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+I1), s		7.5		5.1				2.9				
Green Ext Time (p_c), s		7.1		1.0				0.2				
Intersection Summary												
HCM 6th Ctrl Delay			6.6									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	16	33	14	4	4	34	438	75	65	608	9
Future Volume (veh/h)	4	16	33	14	4	4	34	438	75	65	608	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	18	36	15	4	4	37	481	82	71	668	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	104	208	373	161	161	58	2225	679	179	2356	35
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.03	0.44	0.44	0.05	0.45	0.45
Sat Flow, veh/h	1401	555	1110	1344	856	856	1781	5106	1558	3456	5180	77
Grp Volume(v), veh/h	4	0	54	15	0	8	37	481	82	71	439	239
Grp Sat Flow(s),veh/h/ln	1401	0	1665	1344	0	1713	1781	1702	1558	1728	1702	1854
Q Serve(g_s), s	0.1	0.0	1.2	0.4	0.0	0.2	0.9	2.7	1.4	0.9	3.7	3.7
Cycle Q Clear(g_c), s	0.3	0.0	1.2	1.7	0.0	0.2	0.9	2.7	1.4	0.9	3.7	3.7
Prop In Lane	1.00		0.67	1.00		0.50	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	415	0	313	373	0	322	58	2225	679	179	1548	843
V/C Ratio(X)	0.01	0.00	0.17	0.04	0.00	0.02	0.63	0.22	0.12	0.40	0.28	0.28
Avail Cap(c_a), veh/h	1372	0	1451	1292	0	1493	1164	6675	2036	2259	4450	2423
HCM Platoon Ratio	1.00	1.00	1.00	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	15.3	0.0	15.6	16.4	0.0	15.2	21.9	8.1	7.7	21.1	7.8	7.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0	4.2	0.1	0.1	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 BackOfQ(50%),veh/ln	0.0	0.0	0.4	0.1	0.0	0.1	0.4	0.7	0.4	0.3	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	0.0	15.7	16.4	0.0	15.2	26.1	8.2	7.9	21.6	7.9	8.0
LnGrp LOS	B	A	B	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h	58			23			600			749		
Approach Delay, s/veh	15.7			16.0			9.2			9.3		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.8	25.7	13.4		5.9	26.6	13.4					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I2, s)	12.9	4.7	3.2		2.9	5.7	3.7					
Green Ext Time (p_c), s	0.1	7.0	0.2		0.0	4.8	0.0					

Intersection Summary

HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑			↑↑↑			↑			↑		
Traffic Vol, veh/h	0	2158	10	0	4469	4	0	0	3	0	0	2
Future Vol, veh/h	0	2158	10	0	4469	4	0	0	3	0	0	2
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	2371	11	0	4911	4	0	0	3	0	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1191	-	-	2460
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	154	0	0	20
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	154	-	-	20
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

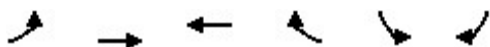
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	28.9	206.1
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	154	-	-	-	-	20
HCM Lane V/C Ratio	0.021	-	-	-	-	0.11
HCM Control Delay (s)	28.9	-	-	-	-	206.1
HCM Lane LOS	D	-	-	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.3

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑↑	↑↑↑	↗	↗	↗
Traffic Volume (veh/h)	745	1435	2088	54	27	48
Future Volume (veh/h)	745	1435	2088	54	27	48
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	847	1631	2373	0	31	55
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	814	4297	2937		87	78
Arrive On Green	0.24	0.86	0.59	0.00	0.05	0.05
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	847	1631	2373	0	31	55
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	27.8	7.9	44.0	0.0	2.0	4.0
Cycle Q Clear(g_c), s	27.8	7.9	44.0	0.0	2.0	4.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	814	4297	2937		87	78
V/C Ratio(X)	1.04	0.38	0.81		0.36	0.71
Avail Cap(c_a), veh/h	814	4297	2937		479	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.46	0.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	1.7	19.0	0.0	54.3	55.3
Incr Delay (d2), s/veh	42.5	0.3	1.2	0.0	0.9	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.3	0.9	15.3	0.0	0.9	3.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	87.6	1.9	20.2	0.0	55.2	59.7
LnGrp LOS	F	A	C		E	E
Approach Vol, veh/h		2478	2373	A	86	
Approach Delay, s/veh		31.2	20.2		58.1	
Approach LOS		C	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		107.0		11.0	32.2	74.8
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		75.8		31.7	27.8	* 44
Max Q Clear Time (g_c+I1), s		9.9		6.0	29.8	46.0
Green Ext Time (p_c), s		49.9		0.1	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	566	18	42	885	44	107	210	64	47	149	489
Future Volume (veh/h)	261	566	18	42	885	44	107	210	64	47	149	489
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.94	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	281	609	19	45	952	47	115	226	69	51	160	526
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	307	1647	51	223	1472	73	138	872	244	66	934	529
Arrive On Green	0.17	0.47	0.47	0.17	0.57	0.57	0.08	0.22	0.22	0.04	0.18	0.18
Sat Flow, veh/h	1781	3516	110	1781	3446	170	1781	3902	1093	1781	5106	1398
Grp Volume(v), veh/h	281	308	320	45	491	508	115	195	100	51	160	526
Grp Sat Flow(s),veh/h/ln	1781	1777	1849	1781	1777	1839	1781	1702	1591	1781	1702	1398
Q Serve(g_s), s	21.7	15.6	15.6	3.1	26.4	26.4	8.9	6.6	7.3	4.0	3.7	25.6
Cycle Q Clear(g_c), s	21.7	15.6	15.6	3.1	26.4	26.4	8.9	6.6	7.3	4.0	3.7	25.6
Prop In Lane	1.00		0.06	1.00		0.09	1.00		0.69	1.00		1.00
Lane Grp Cap(c), veh/h	307	833	866	223	759	786	138	761	356	66	934	529
V/C Ratio(X)	0.92	0.37	0.37	0.20	0.65	0.65	0.83	0.26	0.28	0.77	0.17	0.99
Avail Cap(c_a), veh/h	382	833	866	223	759	786	244	761	356	244	934	529
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	0.99	0.99	0.99	0.99	0.99	0.99
Uniform Delay (d), s/veh	56.9	23.9	23.9	52.3	23.0	23.0	63.7	44.8	45.1	66.8	48.3	45.8
Incr Delay (d2), s/veh	23.1	1.3	1.2	1.8	3.8	3.7	4.8	0.2	0.5	7.0	0.1	37.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.7	7.0	1.5	10.4	10.7	4.2	2.8	3.0	1.9	1.6	23.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.0	25.2	25.1	54.1	26.8	26.7	68.5	45.0	45.5	73.8	48.4	83.3
LnGrp LOS	F	C	C	D	C	C	E	D	D	E	D	F
Approach Vol, veh/h	909					1044		410		737		
Approach Delay, s/veh	42.1					27.9		51.7		75.1		
Approach LOS	D					C		D		E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	36.3	23.3	70.8	15.3	30.6	28.5	65.6				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+I), s	10.6	9.3	5.1	17.6	10.9	27.6	23.7	28.4				
Green Ext Time (p_c), s	0.0	1.7	0.0	5.8	0.1	0.0	0.4	5.1				

Intersection Summary

HCM 6th Ctrl Delay	46.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↔↑↑	↔
Traffic Volume (veh/h)	0	612	54	30	168	0	0	0	0	203	203	813
Future Volume (veh/h)	0	612	54	30	168	0	0	0	0	203	203	813
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	688	61	34	189	0				228	228	913
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1662	147	59	2021	0				616	1293	537
Arrive On Green	0.00	1.00	1.00	0.03	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3391	292	1781	3647	0				1781	3741	1553
Grp Volume(v), veh/h	0	370	379	34	189	0				228	228	913
Grp Sat Flow(s),veh/h/ln	0	1777	1813	1781	1777	0				1781	1870	1553
Q Serve(g_s), s	0.0	0.0	0.0	2.6	3.4	0.0				13.4	5.9	48.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.6	3.4	0.0				13.4	5.9	48.4
Prop In Lane	0.00		0.16	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	895	913	59	2021	0				616	1293	537
V/C Ratio(X)	0.00	0.41	0.41	0.57	0.09	0.00				0.37	0.18	1.70
Avail Cap(c_a), veh/h	0	895	913	313	2021	0				616	1293	537
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	0.85	0.85	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	66.7	13.8	0.0				34.4	31.9	45.8
Incr Delay (d2), s/veh	0.0	1.4	1.3	2.8	0.1	0.0				1.7	0.3	323.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	1.2	1.4	0.0				6.2	2.8	66.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.4	1.3	69.4	13.8	0.0				36.1	32.2	368.9
LnGrp LOS	A	A	A	E	B	A				D	C	F
Approach Vol, veh/h		749			223						1369	
Approach Delay, s/veh		1.3			22.3						257.4	
Approach LOS		A			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.1	77.1		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	14.6	2.0		50.4		5.4						
Green Ext Time (p_c), s	0.0	1.4		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	153.1
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑			↑↑			↑↑	↔			
Traffic Volume (veh/h)	467	345	0	0	175	116	44	86	32	0	0	0
Future Volume (veh/h)	467	345	0	0	175	116	44	86	32	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	497	367	0	0	186	123	47	91	34			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1529	1500	0	0	622	389	88	184	116			
Arrive On Green	0.44	0.80	0.00	0.00	0.30	0.30	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	2180	1305	1156	2433	1533			
Grp Volume(v), veh/h	497	367	0	0	157	152	74	64	34			
Grp Sat Flow(s), veh/h/ln	1728	1870	0	0	1777	1615	1813	1777	1533			
Q Serve(g_s), s	7.5	3.9	0.0	0.0	5.4	5.8	3.1	2.8	1.7			
Cycle Q Clear(g_c), s	7.5	3.9	0.0	0.0	5.4	5.8	3.1	2.8	1.7			
Prop In Lane	1.00		0.00	0.00		0.81	0.64		1.00			
Lane Grp Cap(c), veh/h	1529	1500	0	0	530	481	137	135	116			
V/C Ratio(X)	0.33	0.24	0.00	0.00	0.30	0.32	0.54	0.48	0.29			
Avail Cap(c_a), veh/h	1529	1500	0	0	580	527	387	380	328			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00	0.00	1.00	1.00	0.98	0.98	0.98			
Uniform Delay (d), s/veh	14.5	2.0	0.0	0.0	21.6	21.8	35.6	35.5	34.9			
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	0.1	0.1	1.2	1.0	0.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	2.6	0.6	0.0	0.0	2.1	2.1	1.4	1.2	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.6	2.3	0.0	0.0	21.7	21.9	36.8	36.4	35.4			
LnGrp LOS	B	A	A	A	C	C	D	D	D			
Approach Vol, veh/h	864			309			172					
Approach Delay, s/veh	9.4			21.8			36.4					
Approach LOS	A			C			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	69.0			40.3			28.7			11.0		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	5.9			9.5			7.8			5.1		
Green Ext Time (p_c), s	1.3			1.5			1.0			0.4		

Intersection Summary

HCM 6th Ctrl Delay 15.7

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)
Timing Plan: AM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	88	1684	500	0	0	1429
Future Volume (veh/h)	88	1684	500	0	0	1429
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	95	0	538	0	0	1537
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	153		2044	0	668	5182
Arrive On Green	0.09	0.00	0.41	0.00	0.00	0.82
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	95	0	538	0	0	1537
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	5.7	0.0	7.9	0.0	0.0	6.2
Cycle Q Clear(g_c), s	5.7	0.0	7.9	0.0	0.0	6.2
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	153		2044	0	668	5182
V/C Ratio(X)	0.62		0.26	0.00	0.00	0.30
Avail Cap(c_a), veh/h	487		2044	0	730	5182
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.00	0.88	0.00	0.00	0.93
Uniform Delay (d), s/veh	48.5	0.0	21.5	0.0	0.0	2.2
Incr Delay (d2), s/veh	1.1	0.0	0.1	0.0	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.6	0.0	2.9	0.0	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	49.6	0.0	21.6	0.0	0.0	2.4
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	95	A	538			1537
Approach Delay, s/veh	49.6		21.6			2.4
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	45.6	50.0			95.6	14.4
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.1	20.6			45.1	30.1
Max Q Clear Time (g_c+I10), s	10.0	9.9			8.2	7.7
Green Ext Time (p_c), s	0.0	3.3			17.9	0.1

Intersection Summary

HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	223	1683	125	100	233	0	0	178	24
Future Volume (veh/h)	0	0	0	223	1683	125	100	233	0	0	178	24
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				237	1790	133	106	248	0	0	189	26
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				317	2556	194	135	1406	0	0	636	82
Arrive On Green				0.19	0.19	0.19	0.15	0.55	0.00	0.00	0.14	0.14
Sat Flow, veh/h				552	4455	339	1781	5274	0	0	4662	582
Grp Volume(v), veh/h				791	662	707	106	248	0	0	140	75
Grp Sat Flow(s),veh/h/ln				1843	1702	1802	1781	1702	0	0	1702	1672
Q Serve(g_s), s				44.6	39.8	40.2	6.3	2.7	0.0	0.0	4.1	4.4
Cycle Q Clear(g_c), s				44.6	39.8	40.2	6.3	2.7	0.0	0.0	4.1	4.4
Prop In Lane				0.30		0.19	1.00		0.00	0.00		0.35
Lane Grp Cap(c), veh/h				1057	976	1033	135	1406	0	0	482	237
V/C Ratio(X)				0.75	0.68	0.68	0.79	0.18	0.00	0.00	0.29	0.32
Avail Cap(c_a), veh/h				1057	976	1033	155	1629	0	0	591	290
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.67	0.67	0.67	0.69	0.69	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				37.1	35.1	35.3	45.8	18.5	0.0	0.0	42.3	42.4
Incr Delay (d2), s/veh				3.3	2.6	2.5	12.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				22.9	18.8	20.1	3.1	1.0	0.0	0.0	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.4	37.7	37.8	58.3	18.5	0.0	0.0	42.5	42.9
LnGrp LOS				D	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2160			354			215	
Approach Delay, s/veh					38.7			30.5			42.6	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				14.2	22.0		69.0	36.2				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+I1), s				8.3	6.4		46.6	4.7				
Green Ext Time (p_c), s				0.0	0.7		11.3	1.8				
Intersection Summary												
HCM 6th Ctrl Delay											37.9	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	267	1995	0	0	0	0	0	162	53
Future Volume (veh/h)	0	0	0	267	1995	0	0	0	0	0	162	53
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				281	2100	0				0	171	56
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				412	3312	0				0	764	227
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				581	4833	0				0	4022	1144
Grp Volume(v), veh/h				891	1490	0				0	149	78
Grp Sat Flow(s),veh/h/ln				1841	1702	0				0	1702	1594
Q Serve(g_s), s				48.5	43.1	0.0				0.0	4.0	4.5
Cycle Q Clear(g_c), s				48.5	43.1	0.0				0.0	4.0	4.5
Prop In Lane				0.32		0.00				0.00		0.72
Lane Grp Cap(c), veh/h				1307	2417	0				0	675	316
V/C Ratio(X)				0.68	0.62	0.00				0.00	0.22	0.25
Avail Cap(c_a), veh/h				1307	2417	0				0	675	316
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				30.8	28.7	0.0				0.0	37.0	37.2
Incr Delay (d2), s/veh				2.9	1.2	0.0				0.0	0.8	1.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				24.8	19.9	0.0				0.0	1.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				33.7	29.9	0.0				0.0	37.7	39.0
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2381						227	
Approach Delay, s/veh					31.3						38.2	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.7		83.3						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.8		78.1						
Max Q Clear Time (g_c+l1), s				6.5		50.5						
Green Ext Time (p_c), s				0.3		4.3						
Intersection Summary												
HCM 6th Ctrl Delay											31.9	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2177	117	69	92	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2177	117	69	92	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2316	124	73	98	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3475	184	295	437	0			
Arrive On Green				0.00	0.23	0.23	0.20	0.20	0.00			
Sat Flow, veh/h				0	5126	263	1440	2229	0			
Grp Volume(v), veh/h				0	1584	856	91	80	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1817	1798	1777	0			
Q Serve(g_s), s				0.0	46.5	47.2	4.7	4.1	0.0			
Cycle Q Clear(g_c), s				0.0	46.5	47.2	4.7	4.1	0.0			
Prop In Lane				0.00		0.14	0.80		0.00			
Lane Grp Cap(c), veh/h				0	2386	1274	368	363	0			
V/C Ratio(X)				0.00	0.66	0.67	0.25	0.22	0.00			
Avail Cap(c_a), veh/h				0	2386	1274	368	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	30.5	30.8	36.7	36.4	0.0			
Incr Delay (d2), s/veh				0.0	1.5	2.8	1.6	1.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	21.6	23.9	2.2	1.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	32.0	33.6	38.3	37.8	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2440			171				
Approach Delay, s/veh					32.6			38.1				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						49.2		6.7				
Green Ext Time (p_c), s						22.2		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											32.9	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	314	2287	0	0	0	0	0	213	38
Future Volume (veh/h)	0	0	0	314	2287	0	0	0	0	0	213	38
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				320	2334	0				0	217	39
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				415	3262	0				0	733	312
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				591	4822	0				0	3647	1514
Grp Volume(v), veh/h				996	1658	0				0	217	39
Grp Sat Flow(s),veh/h/ln				1841	1702	0				0	1777	1514
Q Serve(g_s), s				55.7	49.1	0.0				0.0	5.7	2.3
Cycle Q Clear(g_c), s				55.7	49.1	0.0				0.0	5.7	2.3
Prop In Lane				0.32		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1290	2386	0				0	733	312
V/C Ratio(X)				0.77	0.69	0.00				0.00	0.30	0.12
Avail Cap(c_a), veh/h				1290	2386	0				0	733	312
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				34.0	31.5	0.0				0.0	36.9	35.6
Incr Delay (d2), s/veh				4.5	1.7	0.0				0.0	1.0	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				28.9	22.8	0.0				0.0	2.6	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				38.6	33.2	0.0				0.0	37.9	36.4
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2654						256	
Approach Delay, s/veh					35.2						37.7	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+l1), s				7.7		57.7						
Green Ext Time (p_c), s				1.3		17.2						
Intersection Summary												
HCM 6th Ctrl Delay											35.4	
HCM 6th LOS											D	

SDCRAA ADP EIR
23: State St & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2573	86	39	40	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2573	86	39	40	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2653	89	40	41	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3693	123	293	339	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5240	168	1652	2006	0			
Grp Volume(v), veh/h				0	1772	970	43	38	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1836	1788	1777	0			
Q Serve(g_s), s				0.0	32.5	33.5	2.2	2.0	0.0			
Cycle Q Clear(g_c), s				0.0	32.5	33.5	2.2	2.0	0.0			
Prop In Lane				0.00		0.09	0.92		0.00			
Lane Grp Cap(c), veh/h				0	2479	1337	317	315	0			
V/C Ratio(X)				0.00	0.72	0.73	0.14	0.12	0.00			
Avail Cap(c_a), veh/h				0	2479	1337	317	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	8.5	8.6	38.2	38.0	0.0			
Incr Delay (d2), s/veh				0.0	1.8	3.5	0.9	0.8	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	10.7	12.5	1.1	0.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	10.3	12.1	39.0	38.8	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2742			81				
Approach Delay, s/veh					10.9			38.9				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						35.5		4.2				
Green Ext Time (p_c), s						36.1		0.3				
Intersection Summary												
HCM 6th Ctrl Delay											11.7	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	124	441	60	98	0	0	0	17
Future Vol, veh/h	0	0	0	0	124	441	60	98	0	0	0	17
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	128	455	62	101	0	0	0	18
Major/Minor	Major2			Minor1			Minor2					
Conflicting Flow All				-	-	0	85	588	-	-	-	318
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	85	588	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	892	420	0	0	0	678
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	913	494	0	0	0	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	869	418	-	-	-	675
Mov Cap-2 Maneuver				-	-	-	869	418	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	889	492	-	-	-	-
Approach	WB			NB			SB					
HCM Control Delay, s	0			16.3			10.5					
HCM LOS				C			B					
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	418	-	-	675								
HCM Lane V/C Ratio	0.242	-	-	0.026								
HCM Control Delay (s)	16.3	-	-	10.5								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	0.9	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	497	78	983	591	0
Future Volume (veh/h)	0	0	0	0	0	0	0	497	78	983	591	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	565	89	1117	672	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1157	359	3419	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.23	0.23	0.91	1.00	0.00
Sat Flow, veh/h		0					0	5149	1547	5023	1826	0
Grp Volume(v), veh/h		0.0					0	565	89	1117	672	0
Grp Sat Flow(s),veh/h/ln							0	1662	1547	1674	1826	0
Q Serve(g_s), s							0.0	10.8	5.2	3.3	0.0	0.0
Cycle Q Clear(g_c), s							0.0	10.8	5.2	3.3	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1157	359	3419	1740	0
V/C Ratio(X)							0.00	0.49	0.25	0.33	0.39	0.00
Avail Cap(c_a), veh/h							0	1205	374	3419	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.96	0.96	0.00
Uniform Delay (d), s/veh							0.0	36.6	34.4	1.8	0.0	0.0
Incr Delay (d2), s/veh							0.0	0.8	0.9	0.1	0.6	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	4.3	2.0	0.7	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	37.4	35.3	1.9	0.6	0.0
LnGrp LOS							A	D	D	A	A	A
Approach Vol, veh/h								654			1789	
Approach Delay, s/veh								37.1			1.4	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	79.3	30.7					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	5.3	12.8					2.0					
Green Ext Time (p_c), s	4.8	5.9					6.4					
Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
26: Pacific Hwy & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	47	947	38	0	0	0	0	280	195	79	311	0
Future Volume (veh/h)	47	947	38	0	0	0	0	280	195	79	311	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	52	1041	42				0	308	214	87	342	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	146	3122	962				0	611	273	117	1457	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.13	0.57	0.00
Sat Flow, veh/h	236	5027	1549				0	3572	1520	1781	5274	0
Grp Volume(v), veh/h	410	683	42				0	308	214	87	342	0
Grp Sat Flow(s),veh/h/ln	1859	1702	1549				0	1702	1520	1781	1702	0
Q Serve(g_s), s	20.8	18.8	2.4				0.0	9.0	14.8	5.2	3.7	0.0
Cycle Q Clear(g_c), s	20.8	18.8	2.4				0.0	9.0	14.8	5.2	3.7	0.0
Prop In Lane	0.13		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1154	2114	962				0	611	273	117	1457	0
V/C Ratio(X)	0.36	0.32	0.04				0.00	0.50	0.78	0.74	0.23	0.00
Avail Cap(c_a), veh/h	1154	2114	962				0	916	409	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.78	0.78	0.78				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	24.8	24.0	17.5				0.0	40.7	43.1	46.9	17.7	0.0
Incr Delay (d2), s/veh	0.7	0.3	0.1				0.0	0.7	6.3	3.2	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
%ile BackOfQ(50%),veh/ft	0.5	8.6	0.8				0.0	3.8	5.9	2.3	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	24.4	17.6				0.0	41.4	49.3	50.0	17.7	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h	1135						522			429		
Approach Delay, s/veh	24.5						44.7			24.3		
Approach LOS	C						D			C		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	73.2			36.8			11.6		25.2			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	45.6			54.1			20.1		* 30			
Max Q Clear Time (g_c+I1), s	22.8			5.7			7.2		16.8			
Green Ext Time (p_c), s	11.4			1.9			0.1		3.0			

Intersection Summary

HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1171	33	0	0	0	0	0	0	123	307	0
Future Volume (veh/h)	0	1171	33	0	0	0	0	0	0	123	307	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1259	35							132	330	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2975	83							454	1254	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5273	142							1384	3989	0
Grp Volume(v), veh/h	0	839	455							172	290	0
Grp Sat Flow(s),veh/h/ln	0	1702	1843							1801	1702	0
Q Serve(g_s), s	0.0	23.9	23.9							9.7	8.6	0.0
Cycle Q Clear(g_c), s	0.0	23.9	23.9							9.7	8.6	0.0
Prop In Lane	0.00		0.08							0.77		0.00
Lane Grp Cap(c), veh/h	0	1984	1074							591	1117	0
V/C Ratio(X)	0.00	0.42	0.42							0.29	0.26	0.00
Avail Cap(c_a), veh/h	0	1984	1074							591	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(l)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	28.2	28.2							37.3	36.8	0.0
Incr Delay (d2), s/veh	0.0	0.7	1.2							1.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.0	12.1							4.9	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.8	29.4							38.5	37.3	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1294									462	
Approach Delay, s/veh		29.0									37.8	
Approach LOS		C									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		69.0	41.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		64.1	36.1									
Max Q Clear Time (g_c+l1), s		25.9	11.7									
Green Ext Time (p_c), s		3.7	1.2									
Intersection Summary												
HCM 6th Ctrl Delay			31.3									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↑						↑↑					
Traffic Volume (veh/h)	49	1345	0	0	0	0	0	99	175	0	0	0
Future Volume (veh/h)	49	1345	0	0	0	0	0	99	175	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00				
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	53	1446	0				0	106	188			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	101	2920	0				0	599	505			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	175	5259	0				0	1870	1496			
Grp Volume(v), veh/h	563	936	0				0	106	188			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1496			
Q Serve(g_s), s	29.9	27.0	0.0				0.0	4.6	10.5			
Cycle Q Clear(g_c), s	29.9	27.0	0.0				0.0	4.6	10.5			
Prop In Lane	0.09		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1068	1953	0				0	599	505			
V/C Ratio(X)	0.53	0.48	0.00				0.00	0.18	0.37			
Avail Cap(c_a), veh/h	1068	1953	0				0	599	505			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	31.1	29.9	0.0				0.0	25.7	27.6			
Incr Delay (d2), s/veh	1.9	0.8	0.0				0.0	0.6	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ft	5.4	12.5	0.0				0.0	2.1	4.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	30.8	0.0				0.0	26.3	29.7			
LnGrp LOS	C	C	A				A	C	C			
Approach Vol, veh/h	1499					294						
Approach Delay, s/veh	31.6					28.5						
Approach LOS	C					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	68.0					42.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	63.1					37.1						
Max Q Clear Time (g_c+l1), s	31.9					12.5						
Green Ext Time (p_c), s	13.4					2.0						
Intersection Summary												
HCM 6th Ctrl Delay			31.1									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1514	59	0	0	0	0	0	0	184	342	0
Future Volume (veh/h)	0	1514	59	0	0	0	0	0	0	184	342	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1545	60							188	349	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3259	127							471	940	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5211	196							1781	3647	0
Grp Volume(v), veh/h	0	1043	562							188	349	0
Grp Sat Flow(s),veh/h/ln	0	1702	1834							1781	1777	0
Q Serve(g_s), s	0.0	29.5	29.5							11.0	10.2	0.0
Cycle Q Clear(g_c), s	0.0	29.5	29.5							11.0	10.2	0.0
Prop In Lane	0.00		0.11							1.00		0.00
Lane Grp Cap(c), veh/h	0	2200	1185							471	940	0
V/C Ratio(X)	0.00	0.47	0.47							0.40	0.37	0.00
Avail Cap(c_a), veh/h	0	2200	1185							471	940	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.9	26.9							41.9	41.6	0.0
Incr Delay (d2), s/veh	0.0	0.7	1.4							2.5	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.6	14.9							5.6	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.6	28.3							44.4	42.7	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1605									537	
Approach Delay, s/veh		27.9									43.3	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		76.0		34.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		71.1		29.1								
Max Q Clear Time (g_c+l1), s		31.5		13.0								
Green Ext Time (p_c), s		16.3		2.7								
Intersection Summary												
HCM 6th Ctrl Delay			31.7									
HCM 6th LOS			C									

SDCRAA ADP EIR
30: State St & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	43	1545	2	0	0	0	0	49	66	0	0	0
Future Volume (veh/h)	43	1545	2	0	0	0	0	49	66	0	0	0
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			
Work Zone On Approach	No							No				
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870			
Adj Flow Rate, veh/h	47	1679	2				0	53	72			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2				0	2	2			
Cap, veh/h	99	3755	5				0	357	318			
Arrive On Green	0.23	0.23	0.23				0.00	0.20	0.20			
Sat Flow, veh/h	139	5289	7				0	1870	1585			
Grp Volume(v), veh/h	630	523	575				0	53	72			
Grp Sat Flow(s),veh/h/ln	1863	1702	1869				0	1777	1585			
Q Serve(g_s), s	32.0	28.8	28.8				0.0	2.7	4.2			
Cycle Q Clear(g_c), s	32.0	28.8	28.8				0.0	2.7	4.2			
Prop In Lane	0.07		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1323	1208	1327				0	357	318			
V/C Ratio(X)	0.48	0.43	0.43				0.00	0.15	0.23			
Avail Cap(c_a), veh/h	1323	1208	1327				0	357	318			
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	24.5	23.2	23.2				0.0	36.2	36.8			
Incr Delay (d2), s/veh	1.2	1.1	1.0				0.0	0.9	1.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/lt	6.4	13.5	14.8				0.0	1.3	1.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	24.4	24.3				0.0	37.1	38.4			
LnGrp LOS	C	C	C				A	D	D			
Approach Vol, veh/h		1728						125				
Approach Delay, s/veh		24.8						37.9				
Approach LOS		C						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		83.0						27.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		78.1						22.1				
Max Q Clear Time (g_c+I1), s		34.0						6.2				
Green Ext Time (p_c), s		17.6						0.6				
Intersection Summary												
HCM 6th Ctrl Delay			25.7									
HCM 6th LOS			C									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	51	733	894	77	71	106
Future Volume (veh/h)	51	733	894	77	71	106
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	53	764	931	80	74	110
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	69	4097	3482	298	302	138
Arrive On Green	0.01	0.27	1.00	1.00	0.09	0.09
Sat Flow, veh/h	1781	5149	4832	400	3456	1585
Grp Volume(v), veh/h	53	764	662	349	74	110
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1744	1728	1585
Q Serve(g_s), s	3.5	13.9	0.0	0.0	2.4	8.0
Cycle Q Clear(g_c), s	3.5	13.9	0.0	0.0	2.4	8.0
Prop In Lane	1.00			0.23	1.00	1.00
Lane Grp Cap(c), veh/h	69	4097	2479	1301	302	138
V/C Ratio(X)	0.77	0.19	0.27	0.27	0.25	0.79
Avail Cap(c_a), veh/h	319	4097	2479	1301	884	406
HCM Platoon Ratio	0.33	0.33	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	57.7	12.7	0.0	0.0	50.2	52.8
Incr Delay (d2), s/veh	6.3	0.1	0.3	0.5	0.2	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.7	6.2	0.1	0.2	1.0	7.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	64.0	12.8	0.3	0.5	50.4	56.7
LnGrp LOS	E	B	A	A	D	E
Approach Vol, veh/h		817	1011		184	
Approach Delay, s/veh		16.1	0.3		54.1	
Approach LOS		B	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		102.8		15.2	9.0	93.8
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		15.9		10.0	5.5	2.0
Green Ext Time (p_c), s		16.0		0.3	0.0	19.7

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	65	730	10	15	959	5	0	13	13	45	0	12
Future Volume (veh/h)	65	730	10	15	959	5	0	13	13	45	0	12
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		0.96	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	753	10	15	989	0	0	13	13	46	0	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	748	3609	48	60	1567		35	16	16	227	0	102
Arrive On Green	0.84	1.00	1.00	0.03	0.31	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5068	67	1781	4985	1585	1781	841	841	3456	0	1556
Grp Volume(v), veh/h	67	493	270	15	989	0	0	0	26	46	0	12
Grp Sat Flow(s), veh/h/ln	1781	1662	1812	1781	1662	1585	1781	0	1683	1728	0	1556
Q Serve(g_s), s	0.8	0.0	0.0	1.0	20.0	0.0	0.0	0.0	1.8	1.5	0.0	0.9
Cycle Q Clear(g_c), s	0.8	0.0	0.0	1.0	20.0	0.0	0.0	0.0	1.8	1.5	0.0	0.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	748	2367	1290	60	1567		35	0	33	227	0	102
V/C Ratio(X)	0.09	0.21	0.21	0.25	0.63		0.00	0.00	0.79	0.20	0.00	0.12
Avail Cap(c_a), veh/h	748	2367	1290	168	1567		251	0	237	999	0	450
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	0.0	0.0	55.5	34.6	0.0	0.0	0.0	57.6	52.2	0.0	51.9
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.8	1.9	0.0	0.0	0.0	14.7	0.2	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	0.1	0.1	0.4	8.0	0.0	0.0	0.0	0.9	0.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	5.6	0.2	0.4	56.3	36.5	0.0	0.0	0.0	72.4	52.3	0.0	52.1
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h		830			1004	A		26			58	
Approach Delay, s/veh		0.7			36.8			72.4			52.3	
Approach LOS		A			D			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.7			12.7	55.2	42.9		7.2				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+13, s)	2.0			3.5	2.8	22.0		3.8				
Green Ext Time (p_c), s	0.0	7.7		0.1	0.0	8.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 22.1

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	3	12	3	4	13	8	170	5	24	270	68
Future Volume (veh/h)	41	3	12	3	4	13	8	170	5	24	270	68
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		0.95	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	23	13	3	9	10	9	181	5	26	287	72
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	61	35	23	69	77	188	1026	28	211	850	208
Arrive On Green	0.06	0.06	0.06	0.05	0.05	0.05	0.11	0.29	0.29	0.12	0.30	0.30
Sat Flow, veh/h	1781	1114	630	462	1385	1558	1781	3527	97	1781	2799	687
Grp Volume(v), veh/h	30	0	36	12	0	10	9	91	95	26	180	179
Grp Sat Flow(s),veh/h/ln	1781	0	1744	1847	0	1558	1781	1777	1847	1781	1777	1709
Q Serve(g_s), s	0.5	0.0	0.7	0.2	0.0	0.2	0.1	1.3	1.3	0.4	2.6	2.7
Cycle Q Clear(g_c), s	0.5	0.0	0.7	0.2	0.0	0.2	0.1	1.3	1.3	0.4	2.6	2.7
Prop In Lane	1.00		0.36	0.25		1.00	1.00		0.05	1.00		0.40
Lane Grp Cap(c), veh/h	98	0	96	92	0	77	188	517	537	211	539	519
V/C Ratio(X)	0.31	0.00	0.37	0.13	0.00	0.13	0.05	0.18	0.18	0.12	0.33	0.35
Avail Cap(c_a), veh/h	2165	0	2120	2245	0	1893	1353	2700	2807	2165	2700	2596
HCM Platoon Ratio	1.00	1.00	1.00	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	14.9	0.0	15.0	15.0	0.0	15.0	13.2	8.7	8.7	13.0	8.9	8.9
Incr Delay (d2), s/veh	1.3	0.0	1.8	0.2	0.0	0.3	0.0	0.1	0.1	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.3	0.1	0.0	0.1	0.0	0.3	0.4	0.1	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	16.8	15.2	0.0	15.2	13.3	8.8	8.8	13.1	9.1	9.2
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	66				22				195		385	
Approach Delay, s/veh	16.5				15.2				9.0		9.4	
Approach LOS	B				B				A		A	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.9	13.6	5.8		7.5	14.0	5.6					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (G_max)	40.0	50.0	40.0		25.0	50.0	40.0					
Max Q Clear Time (g_c+I)	12.4	3.3	2.7		2.1	4.7	2.2					
Green Ext Time (p_c), s	0.0	0.8	0.2		0.0	1.8	0.0					

Intersection Summary

HCM 6th Ctrl Delay 10.2

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	133	2	3	48	97	185
Future Volume (veh/h)	133	2	3	48	97	185
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	138	0	3	0	100	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	578	303	1042		199	
Arrive On Green	0.16	0.00	0.56	0.00	0.06	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	138	0	3	0	100	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	1.8	0.0	0.0	0.0	1.5	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0	0.0	1.5	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	578	303	1042		199	
V/C Ratio(X)	0.24	0.00	0.00		0.50	
Avail Cap(c_a), veh/h	3309	1737	1042		2568	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.7	0.0	5.3	0.0	24.6	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	2.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	0.0	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.9	0.0	5.3	0.0	26.6	0.0
LnGrp LOS	B	A	A		C	
Approach Vol, veh/h		138	3	A	100	A
Approach Delay, s/veh		19.9	5.3		26.6	
Approach LOS		B	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.7		7.1		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+I1), s		3.8		3.5		2.0
Green Ext Time (p_c), s		0.5		0.3		0.0

Intersection Summary

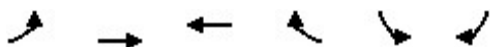
HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Traffic Vol, veh/h	9	89	43	0	0	1
Future Vol, veh/h	9	89	43	0	0	1
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	103	50	0	0	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	57	0	-	0	130	34
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	73	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1546	-	-	-	851	1032
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	941	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1536	-	-	-	833	1023
Mov Cap-2 Maneuver	-	-	-	-	833	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	934	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.7	0		8.5		
HCM LOS	A					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1536	-	-	-	-	1023
HCM Lane V/C Ratio	0.007	-	-	-	-	0.001
HCM Control Delay (s)	7.4	0	-	-	-	8.5
HCM Lane LOS	A	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	744	3681	26	15	67
Future Volume (veh/h)	77	744	3681	26	15	67
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	81	783	3875	0	16	71
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	104	4259	5611		204	94
Arrive On Green	0.06	0.85	0.76	0.00	0.06	0.06
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	81	783	3875	0	16	71
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	5.3	3.2	31.3	0.0	0.5	5.2
Cycle Q Clear(g_c), s	5.3	3.2	31.3	0.0	0.5	5.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	104	4259	5611		204	94
V/C Ratio(X)	0.78	0.18	0.69		0.08	0.76
Avail Cap(c_a), veh/h	319	4259	5611		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	1.5	7.2	0.0	52.5	54.7
Incr Delay (d2), s/veh	11.7	0.1	0.7	0.0	0.2	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.4	7.3	0.0	0.2	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	66.5	1.6	7.9	0.0	52.6	66.4
LnGrp LOS	E	A	A		D	E
Approach Vol, veh/h		864	3875	A	87	
Approach Delay, s/veh		7.7	7.9		63.9	
Approach LOS		A	A		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.1		11.9	11.3	94.8
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		5.2		7.2	7.3	33.3
Green Ext Time (p_c), s		16.3		0.2	0.1	24.2
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	2177	17	61	3016	194	6	0	83	14	1	24
Future Volume (veh/h)	77	2177	17	61	3016	194	6	0	83	14	1	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	2316	18	65	3209	206	6	0	88	15	1	26
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	111	4791	1177	109	4446	280	152	0	117	142	5	125
Arrive On Green	0.06	0.76	0.76	0.06	1.00	1.00	0.08	0.00	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1781	6281	1543	3456	6075	382	1112	0	1421	1305	59	1530
Grp Volume(v), veh/h	82	2316	18	65	2474	941	6	0	88	15	0	27
Grp Sat Flow(s), veh/h/ln	1781	1570	1543	1728	1570	1746	1112	0	1421	1305	0	1588
Q Serve(g_s), s	5.3	16.4	0.3	2.2	0.0	0.0	0.5	0.0	7.1	1.3	0.0	1.9
Cycle Q Clear(g_c), s	5.3	16.4	0.3	2.2	0.0	0.0	2.4	0.0	7.1	3.6	0.0	1.9
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	111	4791	1177	109	3448	1278	152	0	117	142	0	130
V/C Ratio(X)	0.74	0.48	0.02	0.60	0.72	0.74	0.04	0.00	0.76	0.11	0.00	0.21
Avail Cap(c_a), veh/h	168	4791	1177	618	3448	1278	328	0	298	308	0	332
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.28	0.28	0.28	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.4	5.3	3.4	54.5	0.0	0.0	51.7	0.0	53.0	52.5	0.0	50.6
Incr Delay (d2), s/veh	3.6	0.4	0.0	0.5	0.4	1.1	0.0	0.0	3.7	0.1	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 BackOfQ(50%), veh/ln	2.4	4.0	0.1	0.9	0.1	0.4	0.2	0.0	2.7	0.4	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.9	5.6	3.4	55.1	0.4	1.1	51.7	0.0	56.7	52.6	0.0	50.9
LnGrp LOS	E	A	A	E	A	A	D	A	E	D	A	D
Approach Vol, veh/h	2416			3480			94			42		
Approach Delay, s/veh	7.4			1.6			56.4			51.5		
Approach LOS	A			A			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	95.3		14.6	11.8	91.7		14.6				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	21.5	57.6		24.7	11.1	67.6		24.7				
Max Q Clear Time (g_c+14.2), s	14.2	18.4		5.6	7.3	2.0		9.1				
Green Ext Time (p_c), s	0.1	36.9		0.1	0.0	65.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay	5.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑			↰ ↑↑↑				↰		↰ ↰		↰
Traffic Volume (veh/h)	158	2128	0	6	3117	321	0	0	0	44	0	185
Future Volume (veh/h)	158	2128	0	6	3117	321	0	0	0	44	0	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	166	2240	0	6	3281	338	0	0	0	46	0	195
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	168	3467	0	60	3713	368	0	275	0	628	0	232
Arrive On Green	0.13	0.93	0.00	0.03	0.64	0.64	0.00	0.00	0.00	0.15	0.00	0.15
Sat Flow, veh/h	1781	5149	0	1781	5844	580	0	1870	0	3449	0	1582
Grp Volume(v), veh/h	166	2240	0	6	2621	998	0	0	0	46	0	195
Grp Sat Flow(s), veh/h/ln	1781	1662	0	1781	1570	1713	0	1870	0	1724	0	1582
Q Serve(g_s), s	11.0	9.9	0.0	0.4	53.9	60.2	0.0	0.0	0.0	1.4	0.0	14.2
Cycle Q Clear(g_c), s	11.0	9.9	0.0	0.4	53.9	60.2	0.0	0.0	0.0	1.4	0.0	14.2
Prop In Lane	1.00		0.00	1.00		0.34	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	168	3467	0	60	2993	1088	0	275	0	628	0	232
V/C Ratio(X)	0.99	0.65	0.00	0.10	0.88	0.92	0.00	0.00	0.00	0.07	0.00	0.84
Avail Cap(c_a), veh/h	168	3467	0	168	2993	1088	0	471	0	990	0	398
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.00	0.46	0.46	0.46	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.6	1.7	0.0	55.3	17.7	18.8	0.0	0.0	0.0	43.5	0.0	49.0
Incr Delay (d2), s/veh	61.9	0.8	0.0	0.1	1.9	7.1	0.0	0.0	0.0	0.0	0.0	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.5	1.6	0.0	0.2	17.0	22.3	0.0	0.0	0.0	0.6	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	113.5	2.5	0.0	55.4	19.6	25.9	0.0	0.0	0.0	43.5	0.0	52.1
LnGrp LOS	F	A	A	E	B	C	A	A	A	D	A	D
Approach Vol, veh/h	2406			3625			0			241		
Approach Delay, s/veh	10.2			21.4			0.0			50.5		
Approach LOS	B			C						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	87.4			22.2	15.5	80.3		22.2				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	62.6			29.7	11.1	62.6		29.7				
Max Q Clear Time (g_c+I), s	11.9			16.2	13.0	62.2		0.0				
Green Ext Time (p_c), s	0.0	45.1		0.8	0.0	0.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 18.2

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑							
Traffic Volume (veh/h)	46	2132	2	31	3312	0	0	0	19	0	0	0
Future Volume (veh/h)	46	2132	2	31	3312	0	0	0	19	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	49	2292	2	33	3561	0						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	62	4320	4	48	4147	0						
Arrive On Green	0.03	0.84	0.84	0.03	0.83	0.00						
Sat Flow, veh/h	1781	5143	4	1781	5149	0						
Grp Volume(v), veh/h	49	1481	813	33	3561	0						
Grp Sat Flow(s), veh/h/ln	1781	1662	1825	1781	1662	0						
Q Serve(g_s), s	2.0	9.3	9.3	1.3	30.3	0.0						
Cycle Q Clear(g_c), s	2.0	9.3	9.3	1.3	30.3	0.0						
Prop In Lane	1.00		0.00	1.00		0.00						
Lane Grp Cap(c), veh/h	62	2791	1533	48	4147	0						
V/C Ratio(X)	0.79	0.53	0.53	0.69	0.86	0.00						
Avail Cap(c_a), veh/h	742	2791	1533	742	4150	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	34.5	1.7	1.7	34.8	3.6	0.0						
Incr Delay (d2), s/veh	8.1	0.5	1.0	6.4	2.4	0.0						
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%), veh/ln	0.9	0.2	0.4	0.6	0.9	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.6	2.2	2.6	41.2	5.9	0.0						
LnGrp LOS	D	A	A	D	A	A						
Approach Vol, veh/h	2343			3594								
Approach Delay, s/veh	3.2			6.3								
Approach LOS	A			A								
Timer - Assigned Phs	1	2			5	6						
Phs Duration (G+Y+Rc), s	65.7				6.9	65.2						
Change Period (Y+Rc), s	4.4	5.2			4.4	5.2						
Max Green Setting (Gmax), s	30.0	60.0			30.0	60.0						
Max Q Clear Time (g_c+I), s	13.3	11.3			4.0	32.3						
Green Ext Time (p_c), s	0.0	45.2			0.0	27.7						
Intersection Summary												
HCM 6th Ctrl Delay				5.1								
HCM 6th LOS				A								

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	108	0	0	1322	429
Future Vol, veh/h	0	108	0	0	1322	429
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	120	0	0	1469	477

Major/Minor	Minor2		Major2	
Conflicting Flow All	1718	983	-	0
Stage 1	1718	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	132	213	-	-
Stage 1	86	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	129	211	-	-
Mov Cap-2 Maneuver	129	-	-	-
Stage 1	85	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	42.4	0
HCM LOS	E	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	211	-	-
HCM Lane V/C Ratio	-	0.569	-	-
HCM Control Delay (s)	0	42.4	-	-
HCM Lane LOS	A	E	-	-
HCM 95th %tile Q(veh)	-	3.1	-	-

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	119	569	137	71	673	294	51	34	27	172	89	120
Future Volume (veh/h)	119	569	137	71	673	294	51	34	27	172	89	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	639	154	80	756	330	57	38	30	193	100	135
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	2926	885	101	2759	836	245	212	171	333	426	370
Arrive On Green	0.18	1.00	1.00	0.11	1.00	1.00	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	5106	1545	1781	5106	1548	774	885	712	1319	1777	1545
Grp Volume(v), veh/h	134	639	154	80	756	330	59	0	66	193	100	135
Grp Sat Flow(s),veh/h/ln	1781	1702	1545	1781	1702	1548	808	0	1563	1319	1777	1545
Q Serve(g_s), s	8.6	0.0	0.0	5.2	0.0	0.0	5.2	0.0	3.9	16.1	5.3	8.6
Cycle Q Clear(g_c), s	8.6	0.0	0.0	5.2	0.0	0.0	13.8	0.0	3.9	20.0	5.3	8.6
Prop In Lane	1.00		1.00	1.00		1.00	0.96		0.46	1.00		1.00
Lane Grp Cap(c), veh/h	159	2926	885	101	2759	836	254	0	375	333	426	370
V/C Ratio(X)	0.84	0.22	0.17	0.79	0.27	0.39	0.23	0.00	0.18	0.58	0.23	0.36
Avail Cap(c_a), veh/h	319	2926	885	319	2759	836	322	0	468	411	532	462
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.6	0.0	0.0	51.6	0.0	0.0	42.9	0.0	35.6	43.5	36.1	37.4
Incr Delay (d2), s/veh	4.2	0.2	0.4	4.9	0.2	1.3	0.2	0.0	0.1	4.6	0.8	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.1	2.3	0.1	0.3	1.5	0.0	1.5	5.7	2.4	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.2	0.4	56.6	0.2	1.3	43.1	0.0	35.7	48.1	36.9	39.1
LnGrp LOS	D	A	A	E	A	A	D	A	D	D	D	D
Approach Vol, veh/h		927			1166			125			428	
Approach Delay, s/veh		7.7			4.4			39.2			42.7	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	73.7		33.2	15.0	69.9		33.2				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	21.1	* 47		35.3	21.1	46.2		35.3				
Max Q Clear Time (g_c+I1), s	7.2	2.0		22.0	10.6	2.0		15.8				
Green Ext Time (p_c), s	0.1	9.5		3.6	0.1	19.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	413	0	0	542	260	0	0	0	382	0	23
Future Volume (veh/h)	14	413	0	0	542	260	0	0	0	382	0	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	486	0	0	638	0	0	0	0	474	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	2641	0	2	2459		0	2	1	558	293	0
Arrive On Green	0.01	0.74	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3556	1870	0
Grp Volume(v), veh/h	16	486	0	0	638	0	0	0	0	474	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1778	1870	0
Q Serve(g_s), s	1.1	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0
Cycle Q Clear(g_c), s	1.1	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	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	25	2641	0	2	2459		0	2	1	558	293	0
V/C Ratio(X)	0.65	0.18	0.00	0.00	0.26		0.00	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	152	2641	0	152	2459		0	157	133	1118	588	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.79	0.00	0.00
Uniform Delay (d), s/veh	57.9	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.4	0.0	0.0
Incr Delay (d2), s/veh	10.2	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	6.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.1	4.7	0.0	0.0	0.2	0.0	0.0	0.0	0.0	49.5	0.0	0.0
LnGrp LOS	E	A	A	A	A		A	A	A	D	A	A
Approach Vol, veh/h	502			638			0			474		
Approach Delay, s/veh	6.7			0.2			0.0			49.5		
Approach LOS	A			A						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	93.6		24.4	6.0	87.6		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 41		37.1	10.1	39.8		9.9				
Max Q Clear Time (g_c+I), s	10.0	6.8		17.3	3.1	2.0		0.0				
Green Ext Time (p_c), s	0.0	8.9		0.9	0.0	9.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	299	351	183	58	191	90	117	602	36	113	811	92
Future Volume (veh/h)	299	351	183	58	191	90	117	602	36	113	811	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	315	369	193	61	201	95	123	634	38	119	854	97
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	341	601	308	78	411	257	178	1608	96	173	1673	731
Arrive On Green	0.19	0.27	0.27	0.04	0.12	0.12	0.05	0.47	0.47	0.05	0.47	0.47
Sat Flow, veh/h	1781	2247	1154	1781	3554	1536	3456	3405	204	3456	3554	1552
Grp Volume(v), veh/h	315	290	272	61	201	95	123	331	341	119	854	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1624	1781	1777	1536	1728	1777	1832	1728	1777	1552
Q Serve(g_s), s	20.1	16.6	17.1	3.9	6.2	4.0	4.1	14.0	14.0	3.9	19.4	1.9
Cycle Q Clear(g_c), s	20.1	16.6	17.1	3.9	6.2	4.0	4.1	14.0	14.0	3.9	19.4	1.9
Prop In Lane	1.00		0.71	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	341	475	434	78	411	257	178	839	865	173	1673	731
V/C Ratio(X)	0.92	0.61	0.63	0.78	0.49	0.37	0.69	0.39	0.39	0.69	0.51	0.13
Avail Cap(c_a), veh/h	393	685	626	147	888	463	286	839	865	209	1673	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.1	37.2	37.4	54.9	48.1	20.0	54.1	19.8	19.9	54.2	21.4	3.8
Incr Delay (d2), s/veh	23.9	0.5	0.6	6.0	0.3	0.3	1.8	1.4	1.4	4.7	1.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.2	6.8	1.9	2.7	1.7	1.8	6.1	6.3	1.8	8.2	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.9	37.7	37.9	60.9	48.4	20.4	55.9	21.2	21.2	58.9	22.5	4.2
LnGrp LOS	E	D	D	E	D	C	E	C	C	E	C	A
Approach Vol, veh/h	877		357				795			1070		
Approach Delay, s/veh	49.3		43.1				26.6			24.9		
Approach LOS	D		D				C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	60.2	60.1	9.5	36.2	10.4	59.9	27.4	18.3				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	7.0	* 36	9.6	44.7	9.6	32.8	25.6	* 29				
Max Q Clear Time (g_c+1/9), s	15.9	16.0	5.9	19.1	6.1	21.4	22.1	8.2				
Green Ext Time (p_c), s	0.0	1.4	0.0	1.3	0.0	2.1	0.1	0.5				

Intersection Summary

HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	488	148	214	204	65	166	170	528	107	217	80
Future Volume (veh/h)	72	488	148	214	204	65	166	170	528	107	217	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	525	159	230	219	70	178	183	568	115	233	86
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	932	584	299	548	447	209	1290	667	143	1158	430
Arrive On Green	0.06	0.26	0.26	0.09	0.29	0.29	0.12	0.36	0.36	0.08	0.33	0.33
Sat Flow, veh/h	1781	3554	1519	3456	1870	1525	1781	3554	1462	1781	3554	1318
Grp Volume(v), veh/h	77	525	159	230	219	70	178	183	568	115	233	86
Grp Sat Flow(s),veh/h/ln	1781	1777	1519	1728	1870	1525	1781	1777	1462	1781	1777	1318
Q Serve(g_s), s	4.8	14.4	8.1	7.3	10.5	3.8	11.0	3.9	39.3	7.1	5.3	5.3
Cycle Q Clear(g_c), s	4.8	14.4	8.1	7.3	10.5	3.8	11.0	3.9	39.3	7.1	5.3	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	99	932	584	299	548	447	209	1290	667	143	1158	430
V/C Ratio(X)	0.78	0.56	0.27	0.77	0.40	0.16	0.85	0.14	0.85	0.81	0.20	0.20
Avail Cap(c_a), veh/h	476	1266	727	923	666	543	476	1290	667	476	1266	470
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	52.3	35.9	24.2	50.2	31.8	29.4	48.6	24.0	27.9	50.8	27.3	27.3
Incr Delay (d2), s/veh	4.8	0.6	0.3	1.6	0.3	0.1	3.8	0.0	10.2	4.0	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 BackOfQ(50%),veh/ln	2.3	6.3	3.0	3.2	4.8	1.4	5.1	1.6	15.2	3.3	2.3	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	36.5	24.5	51.8	32.1	29.5	52.4	24.1	38.1	54.8	27.3	27.4
LnGrp LOS	E	D	C	D	C	C	D	C	D	D	C	C
Approach Vol, veh/h		761			519			929			434	
Approach Delay, s/veh		36.1			40.5			38.1			34.6	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.1	35.3	18.6	43.3	11.7	38.8	14.4	47.5				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	9.3	16.4	13.0	7.3	6.8	12.5	9.1	41.3				
Green Ext Time (p_c), s	0.4	5.1	0.2	1.2	0.1	1.0	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			37.4									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	53	0	93	68	0	71	21	626	27	66	516	10
Future Volume (veh/h)	53	0	93	68	0	71	21	626	27	66	516	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.96	0.98		0.96	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	0	106	77	0	81	24	711	31	75	586	11
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	44	250	539	0	489	41	1734	75	97	1947	36
Arrive On Green	0.26	0.00	0.26	0.26	0.00	0.26	0.02	0.35	0.35	0.05	0.38	0.38
Sat Flow, veh/h	371	168	952	1421	0	1528	1781	5015	218	1781	5159	97
Grp Volume(v), veh/h	166	0	0	77	0	81	24	482	260	75	386	211
Grp Sat Flow(s), veh/h/ln	1490	0	0	1421	0	1528	1781	1702	1829	1781	1702	1852
Q Serve(g_s), s	0.4	0.0	0.0	0.0	0.0	1.7	0.6	4.7	4.7	1.8	3.5	3.5
Cycle Q Clear(g_c), s	3.7	0.0	0.0	1.5	0.0	1.7	0.6	4.7	4.7	1.8	3.5	3.5
Prop In Lane	0.36		0.64	1.00		1.00	1.00		0.12	1.00		0.05
Lane Grp Cap(c), veh/h	504	0	0	539	0	489	41	1177	632	97	1284	699
V/C Ratio(X)	0.33	0.00	0.00	0.14	0.00	0.17	0.58	0.41	0.41	0.77	0.30	0.30
Avail Cap(c_a), veh/h	1439	0	0	1364	0	1485	1223	4675	2511	1223	4675	2543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	12.4	0.0	10.7	21.1	10.9	10.9	20.4	9.6	9.6
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.1	4.8	0.3	0.6	4.7	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	0.0	0.0	0.5	0.0	0.5	0.3	1.5	1.6	0.8	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.3	0.0	0.0	12.5	0.0	10.8	25.9	11.2	11.5	25.1	9.7	9.8
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	A	A
Approach Vol, veh/h		166			158			766			672	
Approach Delay, s/veh		13.3			11.6			11.8			11.5	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	20.5		16.4	5.4	21.9		16.4				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+I), s	13.8	6.7		5.7	2.6	5.5		3.7				
Green Ext Time (p_c), s	0.1	7.9		0.7	0.0	5.2		0.4				

Intersection Summary

HCM 6th Ctrl Delay 11.8

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	15	149	195	45	186	165	570	18	32	1217	66
Future Volume (veh/h)	140	15	149	195	45	186	165	570	18	32	1217	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.84	1.00		0.86	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	147	16	157	205	47	196	174	600	19	34	1281	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	336	240	230	396	288	204	1779	775	44	1433	77
Arrive On Green	0.10	0.18	0.18	0.13	0.21	0.21	0.11	0.50	0.50	0.02	0.42	0.42
Sat Flow, veh/h	1781	1870	1336	1781	1870	1358	1781	3554	1548	1781	3429	184
Grp Volume(v), veh/h	147	16	157	205	47	196	174	600	19	34	663	687
Grp Sat Flow(s),veh/h/ln	1781	1870	1336	1781	1870	1358	1781	1777	1548	1781	1777	1836
Q Serve(g_s), s	11.4	1.0	15.4	15.9	2.9	18.7	13.5	14.3	0.9	2.7	48.7	48.9
Cycle Q Clear(g_c), s	11.4	1.0	15.4	15.9	2.9	18.7	13.5	14.3	0.9	2.7	48.7	48.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	172	336	240	230	396	288	204	1779	775	44	742	767
V/C Ratio(X)	0.85	0.05	0.65	0.89	0.12	0.68	0.85	0.34	0.02	0.78	0.89	0.90
Avail Cap(c_a), veh/h	380	399	285	380	399	290	380	1779	775	380	758	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	62.5	47.8	53.6	60.3	44.8	51.0	61.1	21.1	17.8	68.2	38.0	38.1
Incr Delay (d2), s/veh	4.6	0.0	2.4	8.4	0.0	5.2	13.2	0.1	0.0	10.4	14.1	14.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.5	5.3	7.7	1.4	6.8	6.9	6.0	0.3	1.3	23.9	24.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.1	47.8	56.1	68.7	44.9	56.3	74.3	21.2	17.8	78.7	52.1	52.0
LnGrp LOS	E	D	E	E	D	E	E	C	B	E	D	D
Approach Vol, veh/h	320			448			793			1384		
Approach Delay, s/veh	60.7			60.8			32.8			52.7		
Approach LOS	E			E			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	79.1	22.5	30.1	20.5	67.5	18.0	34.7				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.7	16.3	17.9	17.4	15.5	50.9	13.4	20.7				
Green Ext Time (p_c), s	0.0	6.1	0.2	0.3	0.6	7.8	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay 49.4

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	222	23	176	66	0	0	0	0	510	79	30
Future Volume (veh/h)	0	222	23	176	66	0	0	0	0	510	79	30
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	239	25	189	71	0				609	0	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	252	502	221	349	666	0				969	0	655
Arrive On Green	0.00	0.14	0.14	0.20	0.20	0.00				0.27	0.00	0.27
Sat Flow, veh/h	1781	3554	1563	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	239	25	189	71	0				609	0	32
Grp Sat Flow(s), veh/h/ln	1781	1777	1563	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	2.3	0.5	3.5	0.6	0.0				5.6	0.0	0.4
Cycle Q Clear(g_c), s	0.0	2.3	0.5	3.5	0.6	0.0				5.6	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	252	502	221	349	666	0				969	0	655
V/C Ratio(X)	0.00	0.48	0.11	0.54	0.11	0.00				0.63	0.00	0.05
Avail Cap(c_a), veh/h	2882	5749	2528	2882	5507	0				3362	0	1718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.7	13.9	13.4	12.3	0.0				11.9	0.0	6.5
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.5	0.1	0.0				0.3	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.7	0.1	1.1	0.2	0.0				1.7	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.9	14.0	14.9	12.3	0.0				12.1	0.0	6.5
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	264			260			641					
Approach Delay, s/veh	14.8			14.2			11.8					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.2			16.3			11.6					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	4.3			7.6			5.5					
Green Ext Time (p_c), s	0.9			1.3			1.7					

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	678	0	0	208	261	19	14	96	37	0	236
Future Volume (veh/h)	75	678	0	0	208	261	19	14	96	37	0	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	745	0	0	229	287	21	15	105	41	0	259
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	109	1424	0	0	469	418	208	23	163	51	0	320
Arrive On Green	0.06	0.40	0.00	0.00	0.26	0.26	0.12	0.12	0.12	0.23	0.00	0.23
Sat Flow, veh/h	1781	3647	0	0	1870	1585	1781	200	1398	216	0	1366
Grp Volume(v), veh/h	82	745	0	0	229	287	21	0	120	300	0	0
Grp Sat Flow(s), veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1597	1582	0	0
Q Serve(g_s), s	2.7	9.5	0.0	0.0	6.5	9.7	0.6	0.0	4.3	10.7	0.0	0.0
Cycle Q Clear(g_c), s	2.7	9.5	0.0	0.0	6.5	9.7	0.6	0.0	4.3	10.7	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.88	0.14		0.86
Lane Grp Cap(c), veh/h	109	1424	0	0	469	418	208	0	186	371	0	0
V/C Ratio(X)	0.75	0.52	0.00	0.00	0.49	0.69	0.10	0.00	0.64	0.81	0.00	0.00
Avail Cap(c_a), veh/h	897	3578	0	0	1789	1596	1196	0	1072	1062	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.5	13.5	0.0	0.0	18.5	19.7	23.5	0.0	25.1	21.6	0.0	0.0
Incr Delay (d2), s/veh	11.6	0.1	0.0	0.0	1.0	2.4	0.1	0.0	1.4	1.6	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	3.0	0.0	0.0	2.4	3.3	0.3	0.0	1.6	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.1	13.6	0.0	0.0	19.5	22.1	23.6	0.0	26.5	23.2	0.0	0.0
LnGrp LOS	D	B	A	A	B	C	C	A	C	C	A	A
Approach Vol, veh/h	827				516		141				300	
Approach Delay, s/veh	16.2				21.0		26.1				23.2	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	28.3		18.0		8.2		20.1		13.4			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	11.5		12.7		4.7		11.7		6.3			
Green Ext Time (p_c), s	3.2		1.4		0.2		4.0		0.5			

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	707	105	255	332	0	0	0	0	871	400	156
Future Volume (veh/h)	0	707	105	255	332	0	0	0	0	871	400	156
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	744	111	268	349	0				917	421	164
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1514	662	348	2058	0				1084	569	479
Arrive On Green	0.00	0.43	0.43	0.20	1.00	0.00				0.30	0.30	0.30
Sat Flow, veh/h	0	3647	1554	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	744	111	268	349	0				917	421	164
Grp Sat Flow(s),veh/h/ln	0	1777	1554	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	12.8	3.7	6.2	0.0	0.0				20.3	17.0	6.8
Cycle Q Clear(g_c), s	0.0	12.8	3.7	6.2	0.0	0.0				20.3	17.0	6.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1514	662	348	2058	0				1084	569	479
V/C Ratio(X)	0.00	0.49	0.17	0.77	0.17	0.00				0.85	0.74	0.34
Avail Cap(c_a), veh/h	0	1514	662	703	2058	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.97	0.97	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	17.5	14.9	32.6	0.0	0.0				27.4	26.2	22.7
Incr Delay (d2), s/veh	0.0	1.0	0.5	1.3	0.2	0.0				3.5	2.2	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
%ile BackOfQ(50%),veh/ln	0.0	4.8	1.3	2.3	0.0	0.0				8.8	7.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.5	15.4	33.9	0.2	0.0				30.9	28.4	22.9
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		855			617						1502	
Approach Delay, s/veh		18.1			14.8						29.3	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	2.9	40.7		30.4		53.6						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	20.6			32.1		42.1						
Max Q Clear Time (g_c+I), s	14.8			22.3		2.0						
Green Ext Time (p_c), s	0.3	2.8		3.3		2.5						

Intersection Summary

HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
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	↖↗	↑↑			↑↑	↖		↖↗				
Traffic Volume (veh/h)	274	1296	0	0	468	458	110	155	44	0	0	0
Future Volume (veh/h)	274	1296	0	0	468	458	110	155	44	0	0	0
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		0.96			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	288	1364	0	0	493	482	116	163	46			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1274	2707	0	0	1189	530	212	330	90			
Arrive On Green	0.74	1.00	0.00	0.00	0.33	0.33	0.12	0.12	0.12			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1742	2709	740			
Grp Volume(v), veh/h	288	1364	0	0	493	482	119	100	106			
Grp Sat Flow(s), veh/h/ln	1728	1777	0	0	1777	1585	1783	1702	1705			
Q Serve(g_s), s	2.2	0.0	0.0	0.0	9.0	24.4	5.3	4.6	4.9			
Cycle Q Clear(g_c), s	2.2	0.0	0.0	0.0	9.0	24.4	5.3	4.6	4.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.98		0.43			
Lane Grp Cap(c), veh/h	1274	2707	0	0	1189	530	217	207	208			
V/C Ratio(X)	0.23	0.50	0.00	0.00	0.41	0.91	0.55	0.48	0.51			
Avail Cap(c_a), veh/h	1274	2707	0	0	1189	530	597	569	570			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.67	0.67	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.2	0.0	0.0	0.0	21.6	26.7	34.7	34.4	34.5			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.1	22.0	0.8	0.7	0.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	0.7	0.2	0.0	0.0	3.6	11.5	2.3	1.9	2.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.3	0.5	0.0	0.0	22.7	48.8	35.5	35.1	35.3			
LnGrp LOS	A	A	A	A	C	D	D	D	D			
Approach Vol, veh/h	1652			975			325					
Approach Delay, s/veh	1.6			35.6			35.3					
Approach LOS	A			D			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.9			35.9			33.0			15.1		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			4.2			26.4			7.3		
Green Ext Time (p_c), s	15.9			0.6			0.8			1.2		

Intersection Summary

HCM 6th Ctrl Delay 16.6

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↩		↩↩↩					
Traffic Volume (veh/h)	0	0	0	0	24	42	21	1203	24	0	0	0
Future Volume (veh/h)	0	0	0	0	24	42	21	1203	24	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	25	44	22	1266	25			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	33	58	117	3266	64			
Arrive On Green				0.00	0.05	0.05	0.66	0.66	0.66			
Sat Flow, veh/h				0	608	1070	29	4966	97			
Grp Volume(v), veh/h				0	0	69	481	399	433			
Grp Sat Flow(s),veh/h/ln				0	0	1678	1861	1549	1683			
Q Serve(g_s), s				0.0	0.0	1.6	0.0	4.6	4.6			
Cycle Q Clear(g_c), s				0.0	0.0	1.6	4.6	4.6	4.6			
Prop In Lane				0.00		0.64	0.05		0.06			
Lane Grp Cap(c), veh/h				0	0	91	1322	1019	1107			
V/C Ratio(X)				0.00	0.00	0.76	0.36	0.39	0.39			
Avail Cap(c_a), veh/h				0	0	1742	2981	2413	2622			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	18.0	3.0	3.0	3.0			
Incr Delay (d2), s/veh				0.0	0.0	4.8	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.6	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	22.7	3.3	3.4	3.4			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					69			1313				
Approach Delay, s/veh					22.7			3.4				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		30.9						7.6				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		6.6						3.6				
Green Ext Time (p_c), s		18.8						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.3									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	200	85	244	201	81	173	366	74	152	952	56
Future Volume (veh/h)	48	200	85	244	201	81	173	366	74	152	952	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	213	90	260	214	86	184	389	79	162	1013	60
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	66	284	240	298	357	144	220	1574	310	197	1751	104
Arrive On Green	0.04	0.15	0.15	0.17	0.28	0.28	0.12	0.37	0.37	0.11	0.36	0.36
Sat Flow, veh/h	1781	1870	1579	1781	1268	510	1781	4276	842	1781	4928	292
Grp Volume(v), veh/h	51	213	90	260	0	300	184	307	161	162	699	374
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	0	1777	1781	1702	1713	1781	1702	1816
Q Serve(g_s), s	2.7	10.2	4.8	13.4	0.0	13.7	9.5	5.9	6.1	8.4	15.7	15.7
Cycle Q Clear(g_c), s	2.7	10.2	4.8	13.4	0.0	13.7	9.5	5.9	6.1	8.4	15.7	15.7
Prop In Lane	1.00		1.00	1.00		0.29	1.00		0.49	1.00		0.16
Lane Grp Cap(c), veh/h	66	284	240	298	0	501	220	1253	631	197	1209	645
V/C Ratio(X)	0.77	0.75	0.38	0.87	0.00	0.60	0.84	0.25	0.25	0.82	0.58	0.58
Avail Cap(c_a), veh/h	569	797	673	569	0	757	569	2175	1095	569	2175	1160
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	44.8	38.1	35.8	38.1	0.0	29.1	40.2	20.6	20.7	40.8	24.6	24.6
Incr Delay (d2), s/veh	7.1	1.5	0.4	3.2	0.0	1.2	3.2	0.2	0.4	3.2	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	4.8	1.9	6.1	0.0	6.0	4.2	2.3	2.4	3.8	6.2	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	39.6	36.2	41.3	0.0	30.3	43.4	20.8	21.1	44.1	25.3	26.1
LnGrp LOS	D	D	D	D	A	C	D	C	C	D	C	C
Approach Vol, veh/h	354		560			652			1235			
Approach Delay, s/veh	40.5		35.4			27.2			28.0			
Approach LOS	D		D			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	39.9	20.1	19.2	16.0	38.7	7.9	31.4				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+10), s	10.4	8.1	15.4	12.2	11.5	17.7	4.7	15.7				
Green Ext Time (p_c), s	0.2	6.0	0.3	1.0	0.2	15.7	0.1	2.0				

Intersection Summary

HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	228	253	66	162	0	0	0	0	233	1725	328
Future Volume (veh/h)	0	228	253	66	162	0	0	0	0	233	1725	328
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	245	272	71	174	0				251	1855	353
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	423	357	144	426	0				1124	2725	510
Arrive On Green	0.00	0.23	0.23	0.23	0.23	0.00				0.63	0.63	0.63
Sat Flow, veh/h	0	1870	1581	344	1971	0				1781	4320	809
Grp Volume(v), veh/h	0	245	272	107	138	0				251	1455	753
Grp Sat Flow(s),veh/h/ln	0	1870	1581	613	1617	0				1781	1702	1724
Q Serve(g_s), s	0.0	10.6	14.6	7.0	6.5	0.0				5.5	25.0	26.0
Cycle Q Clear(g_c), s	0.0	10.6	14.6	17.6	6.5	0.0				5.5	25.0	26.0
Prop In Lane	0.00		1.00	0.66		0.00				1.00		0.47
Lane Grp Cap(c), veh/h	0	423	357	205	365	0				1124	2147	1088
V/C Ratio(X)	0.00	0.58	0.76	0.52	0.38	0.00				0.22	0.68	0.69
Avail Cap(c_a), veh/h	0	618	522	317	534	0				1177	2250	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.3	32.8	36.5	29.7	0.0				7.2	10.8	11.0
Incr Delay (d2), s/veh	0.0	0.5	1.9	1.5	0.5	0.0				0.2	1.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	5.7	2.4	2.6	0.0				1.9	8.5	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.8	34.7	38.0	30.2	0.0				7.4	11.8	13.1
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		517			245						2459	
Approach Delay, s/veh		33.3			33.6						11.8	
Approach LOS		C			C						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				27.2		63.6		27.2				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+l1), s				16.6		28.0		19.6				
Green Ext Time (p_c), s				1.3		29.3		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			16.9									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	209	50	205	0	23	12	211	1177	37	0	0	0
Future Volume (veh/h)	209	50	205	0	23	12	211	1177	37	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	220	53	216	0	24	13	222	1239	39			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	445	74	1216	0	319	173	873	1723	54			
Arrive On Green	0.28	0.28	0.28	0.00	0.28	0.28	0.49	0.49	0.49			
Sat Flow, veh/h	1101	265	1571	0	1141	618	1781	3515	111			
Grp Volume(v), veh/h	273	0	216	0	0	37	222	626	652			
Grp Sat Flow(s), veh/h/ln	1366	0	1571	0	0	1759	1781	1777	1849			
Q Serve(g_s), s	8.1	0.0	0.0	0.0	0.0	0.7	3.4	13.1	13.1			
Cycle Q Clear(g_c), s	8.8	0.0	0.0	0.0	0.0	0.7	3.4	13.1	13.1			
Prop In Lane	0.81		1.00	0.00		0.35	1.00		0.06			
Lane Grp Cap(c), veh/h	519	0	1216	0	0	492	873	871	906			
V/C Ratio(X)	0.53	0.00	0.18	0.00	0.00	0.08	0.25	0.72	0.72			
Avail Cap(c_a), veh/h	1032	0	1773	0	0	1116	1111	1108	1153			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	15.8	0.0	1.5	0.0	0.0	12.5	7.0	9.5	9.5			
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.0	0.0	0.0	0.2	1.7	1.6			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	2.5	0.0	0.0	0.0	0.0	0.3	1.0	4.1	4.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.6	0.0	1.5	0.0	0.0	12.6	7.2	11.2	11.1			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h		489			37			1500				
Approach Delay, s/veh		10.0			12.6			10.5				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		27.7		19.6				19.6				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+l1), s		15.1		10.8				2.7				
Green Ext Time (p_c), s		8.0		2.4				0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	16	41	11	2	6	11	561	127	130	1219	8
Future Volume (veh/h)	6	16	41	11	2	6	11	561	127	130	1219	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	19	48	13	2	7	13	652	148	151	1417	9
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	435	102	258	382	79	277	23	2157	665	261	2539	16
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.01	0.42	0.42	0.08	0.48	0.48
Sat Flow, veh/h	1391	466	1177	1322	361	1265	1781	5106	1575	3456	5235	33
Grp Volume(v), veh/h	7	0	67	13	0	9	13	652	148	151	921	505
Grp Sat Flow(s),veh/h/ln	1391	0	1643	1322	0	1627	1781	1702	1575	1728	1702	1864
Q Serve(g_s), s	0.2	0.0	1.7	0.4	0.0	0.2	0.4	4.5	3.2	2.2	10.1	10.1
Cycle Q Clear(g_c), s	0.4	0.0	1.7	2.2	0.0	0.2	0.4	4.5	3.2	2.2	10.1	10.1
Prop In Lane	1.00		0.72	1.00		0.78	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	435	0	360	382	0	356	23	2157	665	261	1651	904
V/C Ratio(X)	0.02	0.00	0.19	0.03	0.00	0.03	0.55	0.30	0.22	0.58	0.56	0.56
Avail Cap(c_a), veh/h	1188	0	1249	1097	0	1236	1015	5820	1795	1969	3880	2125
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	16.7	17.6	0.0	16.2	25.8	10.1	9.7	23.5	9.6	9.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0	7.4	0.1	0.3	0.8	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.6	0.1	0.0	0.1	0.2	1.4	0.9	0.8	2.9	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	0.0	16.8	17.6	0.0	16.2	33.2	10.2	10.0	24.3	9.9	10.1
LnGrp LOS	B	A	B	B	A	B	C	B	A	C	A	B
Approach Vol, veh/h	74			22			813			1577		
Approach Delay, s/veh	16.8			17.0			10.5			11.3		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.4	27.9	16.3		5.1	31.2	16.3					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	14.2	6.5	3.7		2.4	12.1	4.2					
Green Ext Time (p_c), s	0.2	10.5	0.3		0.0	13.5	0.0					

Intersection Summary

HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Notes

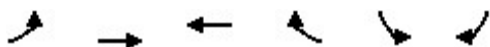
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↱			↑↑↑↑			↱			↱		
Traffic Vol, veh/h	0	3160	12	0	3162	2	0	0	1	0	0	7
Future Vol, veh/h	0	3160	12	0	3162	2	0	0	1	0	0	7
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	3224	12	0	3227	2	0	0	1	0	0	7
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	-	0	0	-	-	0	-	-	1619	-	-	1615
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	79	0	0	79
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	79	-	-	79
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		0			51.2			55.1			
HCM LOS						F			F			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1						
Capacity (veh/h)	79		-	-	-	-	79					
HCM Lane V/C Ratio	0.013		-	-	-	-	0.09					
HCM Control Delay (s)	51.2		-	-	-	-	55.1					
HCM Lane LOS	F		-	-	-	-	F					
HCM 95th %tile Q(veh)	0		-	-	-	-	0.3					

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	1193	2010	1429	131	83	8
Future Volume (veh/h)	1193	2010	1429	131	83	8
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1243	2094	1489	0	86	8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1130	4230	2414		111	99
Arrive On Green	0.33	0.85	0.48	0.00	0.06	0.06
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1243	2094	1489	0	86	8
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	38.6	12.9	25.9	0.0	5.6	0.6
Cycle Q Clear(g_c), s	38.6	12.9	25.9	0.0	5.6	0.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1130	4230	2414		111	99
V/C Ratio(X)	1.10	0.50	0.62		0.77	0.08
Avail Cap(c_a), veh/h	1130	4230	2414		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.84	0.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	2.3	22.4	0.0	54.5	52.1
Incr Delay (d2), s/veh	58.3	0.4	1.0	0.0	4.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.7	1.8	9.7	0.0	2.6	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	98.0	2.7	23.4	0.0	58.8	52.3
LnGrp LOS	F	A	C		E	D
Approach Vol, veh/h		3337	1489	A	94	
Approach Delay, s/veh		38.2	23.4		58.2	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.4		12.6	43.0	62.4
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	38.6	* 35
Max Q Clear Time (g_c+I1), s		14.9		7.6	40.6	27.9
Green Ext Time (p_c), s		57.2		0.1	0.0	6.4
Intersection Summary						
HCM 6th Ctrl Delay			34.1			
HCM 6th LOS			C			

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	1139	79	90	527	107	70	285	129	198	718	451
Future Volume (veh/h)	262	1139	79	90	527	107	70	285	129	198	718	451
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	305	1324	92	105	613	124	81	331	150	230	835	524
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	330	1578	109	207	1193	241	102	464	196	244	1085	627
Arrive On Green	0.19	0.47	0.47	0.04	0.13	0.13	0.06	0.13	0.13	0.14	0.21	0.21
Sat Flow, veh/h	1781	3368	233	1781	2945	594	1781	3505	1482	1781	5106	1566
Grp Volume(v), veh/h	305	697	719	105	369	368	81	321	160	230	835	524
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1762	1781	1702	1584	1781	1702	1566
Q Serve(g_s), s	23.6	48.0	48.4	8.1	27.1	27.2	6.3	12.6	13.7	17.9	21.6	29.8
Cycle Q Clear(g_c), s	23.6	48.0	48.4	8.1	27.1	27.2	6.3	12.6	13.7	17.9	21.6	29.8
Prop In Lane	1.00		0.13	1.00		0.34	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	330	833	855	207	720	714	102	451	210	244	1085	627
V/C Ratio(X)	0.92	0.84	0.84	0.51	0.51	0.51	0.80	0.71	0.76	0.94	0.77	0.84
Avail Cap(c_a), veh/h	382	833	855	207	720	714	244	625	291	244	1085	627
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	0.98	0.98	0.98	0.90	0.90	0.90
Uniform Delay (d), s/veh	56.1	32.5	32.6	63.4	47.8	47.8	65.2	58.2	58.6	59.8	51.9	38.1
Incr Delay (d2), s/veh	25.9	9.8	9.8	8.0	2.4	2.5	5.2	2.5	8.1	38.6	3.3	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	22.1	22.9	4.3	13.4	13.4	3.0	5.6	5.9	10.7	9.5	17.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	42.3	42.4	71.4	50.2	50.3	70.4	60.7	66.7	98.5	55.2	47.3
LnGrp LOS	F	D	D	E	D	D	E	E	E	F	E	D
Approach Vol, veh/h	1721		842			562			1589			
Approach Delay, s/veh	49.4		52.9			63.8			58.8			
Approach LOS	D		D			E			E			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.6	23.5	22.1	70.8	12.4	34.8	30.3	62.5				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+1/9), s	119.9	15.7	10.1	50.4	8.3	31.8	25.6	29.2				
Green Ext Time (p_c), s	0.0	2.3	0.0	10.1	0.1	0.0	0.4	3.5				

Intersection Summary

HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↔↑↑	↔
Traffic Volume (veh/h)	0	1309	120	40	168	0	0	0	0	313	607	562
Future Volume (veh/h)	0	1309	120	40	168	0	0	0	0	313	607	562
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1393	128	43	179	0				333	646	598
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1642	150	68	2021	0				610	1300	543
Arrive On Green	0.00	0.16	0.16	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3385	301	1781	3647	0				1764	3759	1570
Grp Volume(v), veh/h	0	749	772	43	179	0				336	643	598
Grp Sat Flow(s),veh/h/ln	0	1777	1815	1781	1777	0				1782	1870	1570
Q Serve(g_s), s	0.0	57.2	57.9	3.3	3.2	0.0				21.3	19.0	48.4
Cycle Q Clear(g_c), s	0.0	57.2	57.9	3.3	3.2	0.0				21.3	19.0	48.4
Prop In Lane	0.00		0.17	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	886	905	68	2021	0				616	1293	543
V/C Ratio(X)	0.00	0.84	0.85	0.63	0.09	0.00				0.55	0.50	1.10
Avail Cap(c_a), veh/h	0	886	905	313	2021	0				616	1293	543
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.44	0.44	0.82	0.82	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	53.2	53.5	66.3	13.7	0.0				36.9	36.2	45.8
Incr Delay (d2), s/veh	0.0	4.6	4.7	2.9	0.1	0.0				3.5	1.4	69.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	28.4	29.4	1.6	1.3	0.0				10.0	9.1	29.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	57.8	58.2	69.3	13.8	0.0				40.4	37.5	115.3
LnGrp LOS	A	E	E	E	B	A				D	D	F
Approach Vol, veh/h		1521			222						1577	
Approach Delay, s/veh		58.0			24.5						67.6	
Approach LOS		E			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.8	76.4		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.3	59.9		50.4		5.2						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	60.3
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑			↑↑			↑↑	↔			
Traffic Volume (veh/h)	709	892	0	0	177	136	40	206	114	0	0	0
Future Volume (veh/h)	709	892	0	0	177	136	40	206	114	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	762	959	0	0	190	146	43	222	123			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1638	1393	0	0	411	299	74	406	192			
Arrive On Green	0.47	0.74	0.00	0.00	0.21	0.21	0.13	0.13	0.13			
Sat Flow, veh/h	3456	1870	0	0	2056	1428	560	3059	1451			
Grp Volume(v), veh/h	762	959	0	0	171	165	141	124	123			
Grp Sat Flow(s), veh/h/ln	1728	1870	0	0	1777	1613	1842	1777	1451			
Q Serve(g_s), s	11.9	21.5	0.0	0.0	6.7	7.2	5.8	5.2	6.4			
Cycle Q Clear(g_c), s	11.9	21.5	0.0	0.0	6.7	7.2	5.8	5.2	6.4			
Prop In Lane	1.00		0.00	0.00		0.88	0.30		1.00			
Lane Grp Cap(c), veh/h	1638	1393	0	0	372	338	244	236	192			
V/C Ratio(X)	0.47	0.69	0.00	0.00	0.46	0.49	0.58	0.52	0.64			
Avail Cap(c_a), veh/h	1638	1393	0	0	580	526	394	380	310			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.39	0.39	0.00	0.00	1.00	1.00	0.94	0.94	0.94			
Uniform Delay (d), s/veh	14.2	5.3	0.0	0.0	27.6	27.8	32.6	32.3	32.9			
Incr Delay (d2), s/veh	0.1	1.1	0.0	0.0	0.3	0.4	0.8	0.6	1.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	4.1	5.0	0.0	0.0	2.7	2.7	2.6	2.2	2.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.3	6.4	0.0	0.0	28.0	28.2	33.4	33.0	34.1			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	1721			336			388					
Approach Delay, s/veh	9.9			28.1			33.5					
Approach LOS	A			C			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	64.5			42.8			21.7			15.5		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	23.5			13.9			9.2			8.4		
Green Ext Time (p_c), s	4.9			2.0			1.1			0.9		

Intersection Summary

HCM 6th Ctrl Delay 16.2

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	169	952	582	0	0	2183
Future Volume (veh/h)	169	952	582	0	0	2183
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	176	0	606	0	0	2274
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	207		2044	0	614	4990
Arrive On Green	0.12	0.00	0.41	0.00	0.00	0.79
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	176	0	606	0	0	2274
Grp Sat Flow(s), veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	10.7	0.0	9.0	0.0	0.0	12.8
Cycle Q Clear(g_c), s	10.7	0.0	9.0	0.0	0.0	12.8
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	207		2044	0	614	4990
V/C Ratio(X)	0.85		0.30	0.00	0.00	0.46
Avail Cap(c_a), veh/h	487		2044	0	730	4990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.00	0.86	0.00	0.00	0.85
Uniform Delay (d), s/veh	47.6	0.0	21.8	0.0	0.0	3.6
Incr Delay (d2), s/veh	3.2	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
%ile BackOfQ(50%),veh/ln	4.9	0.0	3.3	0.0	0.0	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.9	0.0	21.9	0.0	0.0	3.9
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	176	A	606			2274
Approach Delay, s/veh	50.9		21.9			3.9
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	42.3	50.0			92.3	17.7
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.1	20.6			45.1	30.1
Max Q Clear Time (g_c+I), s	10.0	11.0			14.8	12.7
Green Ext Time (p_c), s	0.0	3.4			24.4	0.2

Intersection Summary

HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	158	999	99	111	378	0	0	817	53
Future Volume (veh/h)	0	0	0	158	999	99	111	378	0	0	817	53
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				166	1052	104	117	398	0	0	860	56
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				361	2446	249	145	1600	0	0	848	55
Arrive On Green				0.19	0.19	0.19	0.16	0.63	0.00	0.00	0.17	0.17
Sat Flow, veh/h				629	4264	433	1781	5274	0	0	5054	317
Grp Volume(v), veh/h				485	408	429	117	398	0	0	598	318
Grp Sat Flow(s),veh/h/ln				1839	1702	1786	1781	1702	0	0	1702	1799
Q Serve(g_s), s				25.8	23.2	23.2	7.0	3.8	0.0	0.0	19.1	19.1
Cycle Q Clear(g_c), s				25.8	23.2	23.2	7.0	3.8	0.0	0.0	19.1	19.1
Prop In Lane				0.34		0.24	1.00		0.00	0.00		0.18
Lane Grp Cap(c), veh/h				1055	976	1024	145	1600	0	0	591	312
V/C Ratio(X)				0.46	0.42	0.42	0.81	0.25	0.00	0.00	1.01	1.02
Avail Cap(c_a), veh/h				1055	976	1024	155	1629	0	0	591	312
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.90	0.90	0.90	0.66	0.66	0.00	0.00	0.55	0.55
Uniform Delay (d), s/veh				29.5	28.4	28.4	45.2	14.8	0.0	0.0	45.5	45.5
Incr Delay (d2), s/veh				1.3	1.2	1.1	15.7	0.1	0.0	0.0	30.5	42.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				13.0	10.9	11.4	3.5	1.4	0.0	0.0	10.4	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.8	29.6	29.6	60.8	14.9	0.0	0.0	75.9	87.7
LnGrp LOS				C	C	C	E	B	A	A	F	F
Approach Vol, veh/h					1322			515			916	
Approach Delay, s/veh					30.0			25.3			80.0	
Approach LOS					C			C			F	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				14.9	25.5		69.0	40.4				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+I1), s				9.0	21.1		27.8	5.8				
Green Ext Time (p_c), s				0.0	0.0		8.3	3.0				
Intersection Summary												
HCM 6th Ctrl Delay											45.8	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
20: Kettner Blvd & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	256	1208	0	0	0	0	0	471	66
Future Volume (veh/h)	0	0	0	256	1208	0	0	0	0	0	471	66
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				267	1258	0				0	491	69
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				612	3102	0				0	895	123
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				862	4537	0				0	4683	621
Grp Volume(v), veh/h				566	959	0				0	368	192
Grp Sat Flow(s),veh/h/ln				1827	1702	0				0	1702	1732
Q Serve(g_s), s				29.1	26.2	0.0				0.0	10.7	11.0
Cycle Q Clear(g_c), s				29.1	26.2	0.0				0.0	10.7	11.0
Prop In Lane				0.47		0.00				0.00		0.36
Lane Grp Cap(c), veh/h				1297	2417	0				0	675	343
V/C Ratio(X)				0.44	0.40	0.00				0.00	0.54	0.56
Avail Cap(c_a), veh/h				1297	2417	0				0	675	343
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				23.3	22.2	0.0				0.0	39.6	39.8
Incr Delay (d2), s/veh				1.1	0.5	0.0				0.0	3.1	6.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				14.5	12.0	0.0				0.0	4.8	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.4	22.7	0.0				0.0	42.8	46.3
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					1525						560	
Approach Delay, s/veh					23.3						44.0	
Approach LOS					C						D	
Timer - Assigned Phs				4	6							
Phs Duration (G+Y+Rc), s				26.7	83.3							
Change Period (Y+Rc), s				4.9	5.2							
Max Green Setting (Gmax), s				21.8	78.1							
Max Q Clear Time (g_c+l1), s				13.0	31.1							
Green Ext Time (p_c), s				0.7	2.3							
Intersection Summary												
HCM 6th Ctrl Delay				28.9								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1373	95	88	185	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1373	95	88	185	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1415	98	91	191	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3418	237	225	510	0			
Arrive On Green				0.00	0.23	0.23	0.07	0.07	0.00			
Sat Flow, veh/h				0	5044	338	1100	2586	0			
Grp Volume(v), veh/h				0	988	525	150	132	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1810	1815	1777	0			
Q Serve(g_s), s				0.0	27.1	27.1	8.7	7.8	0.0			
Cycle Q Clear(g_c), s				0.0	27.1	27.1	8.7	7.8	0.0			
Prop In Lane				0.00		0.19	0.61		0.00			
Lane Grp Cap(c), veh/h				0	2386	1268	371	363	0			
V/C Ratio(X)				0.00	0.41	0.41	0.40	0.36	0.00			
Avail Cap(c_a), veh/h				0	2386	1268	371	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	23.1	23.1	44.9	44.4	0.0			
Incr Delay (d2), s/veh				0.0	0.5	1.0	3.3	2.8	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	12.5	13.4	4.6	3.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	23.6	24.1	48.1	47.2	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					1513			282				
Approach Delay, s/veh					23.8			47.7				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						29.1		10.7				
Green Ext Time (p_c), s						15.9		1.2				
Intersection Summary												
HCM 6th Ctrl Delay											27.5	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	219	1437	0	0	0	0	0	507	52
Future Volume (veh/h)	0	0	0	219	1437	0	0	0	0	0	507	52
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				233	1529	0				0	539	55
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				457	3217	0				0	733	320
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				652	4758	0				0	3647	1553
Grp Volume(v), veh/h				656	1106	0				0	539	55
Grp Sat Flow(s),veh/h/ln				1838	1702	0				0	1777	1553
Q Serve(g_s), s				34.2	30.8	0.0				0.0	15.6	3.2
Cycle Q Clear(g_c), s				34.2	30.8	0.0				0.0	15.6	3.2
Prop In Lane				0.35		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1288	2386	0				0	733	320
V/C Ratio(X)				0.51	0.46	0.00				0.00	0.73	0.17
Avail Cap(c_a), veh/h				1288	2386	0				0	733	320
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				25.8	24.5	0.0				0.0	40.8	35.9
Incr Delay (d2), s/veh				1.4	0.6	0.0				0.0	6.5	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				17.3	14.2	0.0				0.0	7.5	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.2	25.1	0.0				0.0	47.3	37.1
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					1762						594	
Approach Delay, s/veh					25.9						46.3	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				17.6		36.2						
Green Ext Time (p_c), s				1.7		19.0						
Intersection Summary												
HCM 6th Ctrl Delay											31.1	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1644	74	31	81	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1644	74	31	81	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1731	78	33	85	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3647	164	169	469	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5177	225	953	2740	0			
Grp Volume(v), veh/h				0	1176	633	63	55	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1830	1823	1777	0			
Q Serve(g_s), s				0.0	15.8	15.8	3.2	2.9	0.0			
Cycle Q Clear(g_c), s				0.0	15.8	15.8	3.2	2.9	0.0			
Prop In Lane				0.00		0.12	0.52		0.00			
Lane Grp Cap(c), veh/h				0	2479	1332	323	315	0			
V/C Ratio(X)				0.00	0.47	0.48	0.20	0.17	0.00			
Avail Cap(c_a), veh/h				0	2479	1332	323	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	6.2	6.2	38.6	38.4	0.0			
Incr Delay (d2), s/veh				0.0	0.7	1.2	1.3	1.2	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	5.1	5.7	1.6	1.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	6.9	7.4	39.9	39.6	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					1809			118				
Approach Delay, s/veh					7.1			39.8				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						17.8		5.2				
Green Ext Time (p_c), s						23.2		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				9.1								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	171	603	5	103	0	0	0	25
Future Vol, veh/h	0	0	0	0	171	603	5	103	0	0	0	25
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	178	628	5	107	0	0	0	26
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	89	806	-	-	-	403
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	89	806	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	886	314	0	0	0	597
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	908	393	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	847	314	-	-	-	597
Mov Cap-2 Maneuver				-	-	-	847	314	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	868	393	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		22.3		11.3				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	314	-	-	597								
HCM Lane V/C Ratio	0.342	-	-	0.044								
HCM Control Delay (s)	22.3	-	-	11.3								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.5	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	575	134	1217	1157	0
Future Volume (veh/h)	0	0	0	0	0	0	0	575	134	1217	1157	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.83	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	587	137	1242	1181	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	909	239	3669	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.18	0.18	0.49	0.64	0.00
Sat Flow, veh/h		0					0	5149	1311	5023	1826	0
Grp Volume(v), veh/h		0.0					0	587	137	1242	1181	0
Grp Sat Flow(s),veh/h/ln							0	1662	1311	1674	1826	0
Q Serve(g_s), s							0.0	12.0	10.5	16.6	45.4	0.0
Cycle Q Clear(g_c), s							0.0	12.0	10.5	16.6	45.4	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	909	239	3669	1740	0
V/C Ratio(X)							0.00	0.65	0.57	0.34	0.68	0.00
Avail Cap(c_a), veh/h							0	1205	317	3669	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.86	0.86	0.00
Uniform Delay (d), s/veh							0.0	41.7	41.1	11.8	9.2	0.0
Incr Delay (d2), s/veh							0.0	2.0	5.5	0.0	1.9	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	4.9	3.6	6.6	13.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	43.7	46.6	11.9	11.0	0.0
LnGrp LOS							A	D	D	B	B	A
Approach Vol, veh/h								724			2423	
Approach Delay, s/veh								44.2			11.5	
Approach LOS								D			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	84.7	25.3					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	18.6	14.0					47.4					
Green Ext Time (p_c), s	5.1	6.1					0.0					
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
26: Pacific Hwy & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	50	1314	41	0	0	0	0	395	242	192	824	0
Future Volume (veh/h)	50	1314	41	0	0	0	0	395	242	192	824	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	51	1341	42				0	403	247	196	841	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	97	2714	840				0	706	306	223	1902	0
Arrive On Green	0.18	0.18	0.18				0.00	0.21	0.21	0.25	0.75	0.00
Sat Flow, veh/h	182	5084	1573				0	3572	1477	1781	5274	0
Grp Volume(v), veh/h	522	870	42				0	403	247	196	841	0
Grp Sat Flow(s),veh/h/ln	1861	1702	1573				0	1702	1477	1781	1702	0
Q Serve(g_s), s	28.0	25.3	2.4				0.0	11.7	17.5	11.6	6.9	0.0
Cycle Q Clear(g_c), s	28.0	25.3	2.4				0.0	11.7	17.5	11.6	6.9	0.0
Prop In Lane	0.10		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	994	1817	840				0	706	306	223	1902	0
V/C Ratio(X)	0.53	0.48	0.05				0.00	0.57	0.81	0.88	0.44	0.00
Avail Cap(c_a), veh/h	994	1817	840				0	916	397	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.71	0.71	0.71				0.00	1.00	1.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	32.7	31.5	22.1				0.0	39.2	41.5	40.4	9.7	0.0
Incr Delay (d2), s/veh	1.4	0.6	0.1				0.0	0.8	9.5	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
%ile BackOfQ(50%),veh/ln	4.3	11.7	0.9				0.0	4.9	7.1	4.5	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	32.2	22.2				0.0	40.0	51.0	41.8	9.7	0.0
LnGrp LOS	C	C	C				A	D	D	D	A	A
Approach Vol, veh/h	1434						650			1037		
Approach Delay, s/veh	32.6						44.2			15.8		
Approach LOS	C						D			B		
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	63.6			46.4			18.2		28.2			
Change Period (Y+Rc), s	4.9			5.4			4.4		* 5.4			
Max Green Setting (Gmax), s	45.6			54.1			20.1		* 30			
Max Q Clear Time (g_c+I1), s	30.0			8.9			13.6		19.5			
Green Ext Time (p_c), s	11.0			5.2			0.1		3.3			

Intersection Summary

HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1729	48	0	0	0	0	0	0	241	491	0
Future Volume (veh/h)	0	1729	48	0	0	0	0	0	0	241	491	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1900	53							265	540	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2973	83							525	1180	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5271	142							1600	3762	0
Grp Volume(v), veh/h	0	1267	686							296	509	0
Grp Sat Flow(s),veh/h/ln	0	1702	1841							1790	1702	0
Q Serve(g_s), s	0.0	37.7	37.8							17.2	15.4	0.0
Cycle Q Clear(g_c), s	0.0	37.7	37.8							17.2	15.4	0.0
Prop In Lane	0.00		0.08							0.89		0.00
Lane Grp Cap(c), veh/h	0	1984	1073							588	1117	0
V/C Ratio(X)	0.00	0.64	0.64							0.50	0.46	0.00
Avail Cap(c_a), veh/h	0	1984	1073							588	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	33.8	33.8							40.6	39.8	0.0
Incr Delay (d2), s/veh	0.0	1.6	2.9							3.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	17.6	19.4							8.8	7.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.3	36.7							43.7	41.2	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		1953									805	
Approach Delay, s/veh		35.8									42.1	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		69.0	41.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		64.1	36.1									
Max Q Clear Time (g_c+l1), s		39.8	19.2									
Green Ext Time (p_c), s		6.5	2.1									
Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	73	2014	0	0	0	0	0	203	209	0	0	0
Future Volume (veh/h)	73	2014	0	0	0	0	0	203	209	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	80	2213	0				0	223	230			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	99	2921	0				0	599	512			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	173	5261	0				0	1870	1517			
Grp Volume(v), veh/h	862	1431	0				0	223	230			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1517			
Q Serve(g_s), s	48.7	43.5	0.0				0.0	10.5	13.0			
Cycle Q Clear(g_c), s	48.7	43.5	0.0				0.0	10.5	13.0			
Prop In Lane	0.09		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1068	1953	0				0	599	512			
V/C Ratio(X)	0.81	0.73	0.00				0.00	0.37	0.45			
Avail Cap(c_a), veh/h	1068	1953	0				0	599	512			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	38.8	36.7	0.0				0.0	27.6	28.5			
Incr Delay (d2), s/veh	6.5	2.5	0.0				0.0	1.8	2.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.2	20.5	0.0				0.0	4.8	5.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	39.1	0.0				0.0	29.4	31.3			
LnGrp LOS	D	D	A				A	C	C			
Approach Vol, veh/h	2293					453						
Approach Delay, s/veh	41.5					30.4						
Approach LOS	D					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	68.0					42.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	63.1					37.1						
Max Q Clear Time (g_c+l1), s	50.7					15.0						
Green Ext Time (p_c), s	10.6					3.0						
Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↵	↑↑	
Traffic Volume (veh/h)	0	2298	61	0	0	0	0	0	0	315	399	0
Future Volume (veh/h)	0	2298	61	0	0	0	0	0	0	315	399	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2498	66							342	434	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3352	88							455	908	0
Arrive On Green	0.00	0.22	0.22							0.08	0.08	0.00
Sat Flow, veh/h	0	5282	134							1781	3647	0
Grp Volume(v), veh/h	0	1658	906							342	434	0
Grp Sat Flow(s),veh/h/ln	0	1702	1844							1781	1777	0
Q Serve(g_s), s	0.0	50.0	50.5							20.6	12.8	0.0
Cycle Q Clear(g_c), s	0.0	50.0	50.5							20.6	12.8	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	2231	1209							455	908	0
V/C Ratio(X)	0.00	0.74	0.75							0.75	0.48	0.00
Avail Cap(c_a), veh/h	0	2231	1209							455	908	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	34.5	34.7							47.0	43.4	0.0
Incr Delay (d2), s/veh	0.0	2.3	4.3							10.9	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	23.4	26.3							11.3	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.8	38.9							57.9	45.2	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		2564									776	
Approach Delay, s/veh		37.5									50.8	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		77.0	33.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		72.1	28.1									
Max Q Clear Time (g_c+l1), s		52.5	22.6									
Green Ext Time (p_c), s		17.0	2.0									
Intersection Summary												
HCM 6th Ctrl Delay			40.6									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑				
Traffic Volume (veh/h)	31	2378	59	0	0	0	0	81	86	0	0	0
Future Volume (veh/h)	31	2378	59	0	0	0	0	81	86	0	0	0
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			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870			
Adj Flow Rate, veh/h	36	2798	69				0	95	101			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	2				0	2	2			
Cap, veh/h	45	3706	94				0	357	318			
Arrive On Green	0.23	0.23	0.23				0.00	0.20	0.20			
Sat Flow, veh/h	63	5220	132				0	1870	1585			
Grp Volume(v), veh/h	1060	878	965				0	95	101			
Grp Sat Flow(s),veh/h/ln	1867	1702	1847				0	1777	1585			
Q Serve(g_s), s	58.9	52.4	53.2				0.0	5.0	6.0			
Cycle Q Clear(g_c), s	58.9	52.4	53.2				0.0	5.0	6.0			
Prop In Lane	0.03		0.07				0.00		1.00			
Lane Grp Cap(c), veh/h	1326	1208	1311				0	357	318			
V/C Ratio(X)	0.80	0.73	0.74				0.00	0.27	0.32			
Avail Cap(c_a), veh/h	1326	1208	1311				0	357	318			
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	34.7	32.3	32.6				0.0	37.1	37.5			
Incr Delay (d2), s/veh	5.1	3.8	3.7				0.0	1.8	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.3	25.1	27.6				0.0	2.4	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.9	36.1	36.3				0.0	38.9	40.1			
LnGrp LOS	D	D	D				A	D	D			
Approach Vol, veh/h		2903						196				
Approach Delay, s/veh		37.5						39.5				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		83.0						27.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		78.1						22.1				
Max Q Clear Time (g_c+I1), s		60.9						8.0				
Green Ext Time (p_c), s		16.0						0.9				
Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	18	991	868	32	132	125
Future Volume (veh/h)	18	991	868	32	132	125
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	20	1077	943	35	143	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	29	4010	3704	137	363	166
Arrive On Green	0.02	0.80	1.00	1.00	0.10	0.10
Sat Flow, veh/h	1781	5149	5098	183	3456	1585
Grp Volume(v), veh/h	20	1077	635	343	143	136
Grp Sat Flow(s),veh/h/ln	1781	1662	1662	1793	1728	1585
Q Serve(g_s), s	1.3	6.4	0.0	0.0	4.6	9.9
Cycle Q Clear(g_c), s	1.3	6.4	0.0	0.0	4.6	9.9
Prop In Lane	1.00			0.10	1.00	1.00
Lane Grp Cap(c), veh/h	29	4010	2495	1346	363	166
V/C Ratio(X)	0.69	0.27	0.25	0.25	0.39	0.82
Avail Cap(c_a), veh/h	319	4010	2495	1346	884	406
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	57.7	2.9	0.0	0.0	49.3	51.7
Incr Delay (d2), s/veh	9.7	0.2	0.2	0.4	0.3	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	0.1	0.2	2.0	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	67.4	3.0	0.2	0.4	49.6	55.4
LnGrp LOS	E	A	A	A	D	E
Approach Vol, veh/h		1097	978		279	
Approach Delay, s/veh		4.2	0.3		52.4	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		100.7		17.3	6.3	94.4
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		8.4		11.9	3.3	2.0
Green Ext Time (p_c), s		26.9		0.5	0.0	18.7
Intersection Summary						
HCM 6th Ctrl Delay			8.3			
HCM 6th LOS			A			
Notes						
User approved pedestrian interval to be less than phase max green.						
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.						



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	64	1035	17	18	860	11	0	13	26	91	0	14
Future Volume (veh/h)	64	1035	17	18	860	11	0	13	26	91	0	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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	1190	20	21	989	0	0	15	30	105	0	16
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	728	3540	59	60	1567		61	19	38	214	0	98
Arrive On Green	0.82	1.00	1.00	0.03	0.31	0.00	0.00	0.03	0.03	0.06	0.00	0.06
Sat Flow, veh/h	1781	5049	85	1781	4985	1585	1781	553	1106	3456	0	1577
Grp Volume(v), veh/h	74	783	427	21	989	0	0	0	45	105	0	16
Grp Sat Flow(s), veh/h/ln	1781	1662	1811	1781	1662	1585	1781	0	1660	1728	0	1577
Q Serve(g_s), s	1.0	0.0	0.0	1.4	20.0	0.0	0.0	0.0	3.2	3.5	0.0	1.1
Cycle Q Clear(g_c), s	1.0	0.0	0.0	1.4	20.0	0.0	0.0	0.0	3.2	3.5	0.0	1.1
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	728	2330	1270	60	1567		61	0	57	214	0	98
V/C Ratio(X)	0.10	0.34	0.34	0.35	0.63		0.00	0.00	0.79	0.49	0.00	0.16
Avail Cap(c_a), veh/h	728	2330	1270	168	1567		251	0	233	999	0	456
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.5	0.0	0.0	55.7	34.6	0.0	0.0	0.0	56.6	53.5	0.0	52.4
Incr Delay (d2), s/veh	0.0	0.4	0.7	1.3	1.9	0.0	0.0	0.0	8.8	0.6	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 BackOfQ(50%), veh/ln	0.4	0.1	0.2	0.6	8.0	0.0	0.0	0.0	1.5	1.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.5	0.4	0.7	57.0	36.5	0.0	0.0	0.0	65.3	54.2	0.0	52.7
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1284			1010			45			121		
Approach Delay, s/veh	0.8			37.0			65.3			54.0		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.4			12.2	53.9	42.9		8.9				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+13), s	2.0			5.5	3.0	22.0		5.2				
Green Ext Time (p_c), s	0.0	12.1		0.2	0.0	8.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay 19.5

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  		 	  		 				 	
Traffic Volume (veh/h)	52	1112	128	278	1466	61	141	25	326	236	26	124
Future Volume (veh/h)	52	1112	128	278	1466	61	141	25	326	236	26	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	1196	138	299	1576	66	152	27	0	254	28	133
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	514	2778	983	310	2179	91	217	117		432	33	157
Arrive On Green	0.29	0.56	0.56	0.09	0.35	0.35	0.06	0.06	0.00	0.12	0.12	0.12
Sat Flow, veh/h	1781	4985	1584	3456	6225	261	3456	1870	1585	3563	272	1294
Grp Volume(v), veh/h	56	1196	138	299	1192	450	152	27	0	254	0	161
Grp Sat Flow(s),veh/h/ln	1781	1662	1584	1728	1570	1775	1728	1870	1585	1781	0	1566
Q Serve(g_s), s	2.7	16.5	4.3	10.2	26.0	26.0	5.1	1.6	0.0	8.0	0.0	11.9
Cycle Q Clear(g_c), s	2.7	16.5	4.3	10.2	26.0	26.0	5.1	1.6	0.0	8.0	0.0	11.9
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	514	2778	983	310	1649	621	217	117		432	0	190
V/C Ratio(X)	0.11	0.43	0.14	0.96	0.72	0.72	0.70	0.23		0.59	0.00	0.85
Avail Cap(c_a), veh/h	514	2778	983	310	1649	621	1084	586		486	0	214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.8	15.2	9.3	53.5	33.4	33.4	54.2	52.6	0.0	49.0	0.0	50.8
Incr Delay (d2), s/veh	0.0	0.5	0.3	40.8	2.8	7.2	1.5	0.4	0.0	1.5	0.0	23.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.9	1.7	6.1	9.9	11.9	2.2	0.8	0.0	3.6	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	15.7	9.6	94.3	36.2	40.6	55.7	52.9	0.0	50.5	0.0	74.6
LnGrp LOS	C	B	A	F	D	D	E	D		D	A	E
Approach Vol, veh/h	1390					1941		179		A		415
Approach Delay, s/veh	15.7					46.1		55.3				59.9
Approach LOS	B					D		E				E
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	5.0	71.5	19.2		39.8	46.7	12.3					
Change Period (Y+Rc), s	4.4	5.7	4.9		5.7	* 5.4	4.9					
Max Green Setting (Gmax), s	10.6	34.4	16.1		4.0	* 41	37.0					
Max Q Clear Time (g_c+1/2), s	11.2	18.5	13.9		4.7	28.0	7.1					
Green Ext Time (p_c), s	0.0	11.3	0.4		0.0	11.8	0.3					

Intersection Summary

HCM 6th Ctrl Delay 37.2

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	0	30	3	0	19	15	347	8	17	367	72
Future Volume (veh/h)	94	0	30	3	0	19	15	347	8	17	367	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	48	32	0	0	23	16	369	9	18	390	77
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	92	61	0	43	69	202	1100	27	205	920	180
Arrive On Green	0.09	0.09	0.09	0.00	0.00	0.02	0.11	0.31	0.31	0.11	0.31	0.31
Sat Flow, veh/h	1781	1032	688	0	1870	3016	1781	3543	86	1781	2952	577
Grp Volume(v), veh/h	66	0	80	0	0	23	16	185	193	18	233	234
Grp Sat Flow(s), veh/h/ln	1781	0	1721	0	1870	1508	1781	1777	1853	1781	1777	1752
Q Serve(g_s), s	1.2	0.0	1.5	0.0	0.0	0.3	0.3	2.8	2.8	0.3	3.6	3.7
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.0	0.0	0.3	0.3	2.8	2.8	0.3	3.6	3.7
Prop In Lane	1.00		0.40	0.00		1.00	1.00		0.05	1.00		0.33
Lane Grp Cap(c), veh/h	158	0	153	0	43	69	202	551	575	205	554	546
V/C Ratio(X)	0.42	0.00	0.52	0.00	0.00	0.33	0.08	0.34	0.34	0.09	0.42	0.43
Avail Cap(c_a), veh/h	2063	0	1992	0	2166	3493	1289	2572	2682	2063	2572	2536
HCM Platoon Ratio	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	0.0	15.0	0.0	0.0	16.6	13.7	9.2	9.2	13.7	9.4	9.4
Incr Delay (d2), s/veh	1.3	0.0	2.1	0.0	0.0	1.0	0.1	0.3	0.3	0.1	0.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	0.0	0.6	0.0	0.0	0.1	0.1	0.8	0.8	0.1	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	0.0	17.1	0.0	0.0	17.7	13.8	9.4	9.4	13.7	9.8	9.8
LnGrp LOS	B	A	B	A	A	B	B	A	A	B	A	A
Approach Vol, veh/h	146			23			394			485		
Approach Delay, s/veh	16.7			17.7			9.6			10.0		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	14.7		7.1	7.9	14.8		4.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	40.0	50.0		40.0	25.0	50.0		40.0				
Max Q Clear Time (g_c+I), s	12.3	4.8		3.5	2.3	5.7		2.3				
Green Ext Time (p_c), s	0.0	1.8		0.5	0.0	2.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 10.9

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	240	17	8	124	141	265
Future Volume (veh/h)	240	17	8	124	141	265
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	278	0	9	0	155	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	624	327	995		277	
Arrive On Green	0.18	0.00	0.53	0.00	0.08	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	278	0	9	0	155	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	3.9	0.0	0.1	0.0	2.4	0.0
Cycle Q Clear(g_c), s	3.9	0.0	0.1	0.0	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	624	327	995		277	
V/C Ratio(X)	0.45	0.00	0.01		0.56	
Avail Cap(c_a), veh/h	3159	1658	995		2451	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.8	0.0	6.2	0.0	25.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	1.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	0.0	0.0	0.0	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.3	0.0	6.2	0.0	26.8	0.0
LnGrp LOS	C	A	A		C	
Approach Vol, veh/h		278	9	A	155	A
Approach Delay, s/veh		21.3	6.2		26.8	
Approach LOS		C	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.9		8.5		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+l1), s		5.9		4.4		2.1
Green Ext Time (p_c), s		1.0		0.5		0.0

Intersection Summary

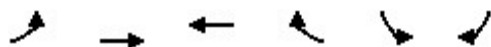
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Traffic Vol, veh/h	13	151	130	6	1	2
Future Vol, veh/h	13	151	130	6	1	2
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	176	151	7	1	2
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	158	0	-	0	273	79
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	118	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1419	-	-	-	694	965
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	894	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1419	-	-	-	686	965
Mov Cap-2 Maneuver	-	-	-	-	686	-
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	894	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		9.3		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1419	-	-	-	850	
HCM Lane V/C Ratio	0.011	-	-	-	0.004	
HCM Control Delay (s)	7.6	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	55	1573	3028	12	39	93
Future Volume (veh/h)	55	1573	3028	12	39	93
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	59	1673	3221	0	41	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	77	4153	5567		278	127
Arrive On Green	0.04	0.83	0.75	0.00	0.08	0.08
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	59	1673	3221	0	41	99
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	3.9	9.9	22.5	0.0	1.3	7.2
Cycle Q Clear(g_c), s	3.9	9.9	22.5	0.0	1.3	7.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	77	4153	5567		278	127
V/C Ratio(X)	0.77	0.40	0.58		0.15	0.78
Avail Cap(c_a), veh/h	319	4153	5567		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	2.5	6.4	0.0	50.5	53.2
Incr Delay (d2), s/veh	14.7	0.3	0.4	0.0	0.2	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.7	5.3	0.0	0.6	6.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	70.5	2.8	6.8	0.0	50.7	62.9
LnGrp LOS	E	A	A		D	E
Approach Vol, veh/h		1732	3221	A	140	
Approach Delay, s/veh		5.1	6.8		59.4	
Approach LOS		A	A		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		103.6		14.4	9.5	94.1
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		11.9		9.2	5.9	24.5
Green Ext Time (p_c), s		48.6		0.4	0.1	33.0
Intersection Summary						
HCM 6th Ctrl Delay			7.7			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	3067	14	27	2350	16	13	0	36	182	0	44
Future Volume (veh/h)	41	3067	14	27	2350	16	13	0	36	182	0	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.94		0.93	0.94		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	3298	15	29	2527	17	14	0	39	196	0	47
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	74	4098	1033	72	4098	28	286	0	269	276	0	298
Arrive On Green	0.04	0.65	0.65	0.04	1.00	1.00	0.20	0.00	0.20	0.20	0.00	0.20
Sat Flow, veh/h	1781	6281	1584	3456	6485	44	1107	0	1323	1283	0	1470
Grp Volume(v), veh/h	44	3298	15	29	1835	709	14	0	39	196	0	47
Grp Sat Flow(s), veh/h/ln	1781	1570	1584	1728	1570	1818	1107	0	1323	1283	0	1470
Q Serve(g_s), s	2.9	45.3	0.4	1.0	0.0	0.0	1.1	0.0	2.9	17.7	0.0	3.1
Cycle Q Clear(g_c), s	2.9	45.3	0.4	1.0	0.0	0.0	4.2	0.0	2.9	21.9	0.0	3.1
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	74	4098	1033	72	2977	1149	286	0	269	276	0	298
V/C Ratio(X)	0.60	0.80	0.01	0.40	0.62	0.62	0.05	0.00	0.15	0.71	0.00	0.16
Avail Cap(c_a), veh/h	168	4098	1033	618	2977	1149	294	0	277	284	0	308
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.72	0.72	0.72	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.6	15.0	7.2	55.8	0.0	0.0	40.4	0.0	38.6	48.3	0.0	38.7
Incr Delay (d2), s/veh	2.9	1.8	0.0	1.0	0.7	1.8	0.0	0.0	0.1	6.6	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	14.1	0.1	0.4	0.2	0.6	0.3	0.0	0.9	6.2	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.5	16.8	7.2	56.8	0.7	1.8	40.5	0.0	38.7	54.8	0.0	38.8
LnGrp LOS	E	B	A	E	A	A	D	A	D	D	A	D
Approach Vol, veh/h	3357			2573			53			243		
Approach Delay, s/veh	17.3			1.6			39.2			51.7		
Approach LOS	B			A			D			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	82.3		28.9	9.3	79.9		28.9				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	21.5	57.6		24.7	11.1	67.6		24.7				
Max Q Clear Time (g_c+13, s)	13.0	47.3		23.9	4.9	2.0		6.2				
Green Ext Time (p_c), s	0.0	10.3		0.0	0.0	60.5		0.1				

Intersection Summary

HCM 6th Ctrl Delay 12.3

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑			↰		↰ ↰	↑	↰
Traffic Volume (veh/h)	114	3031	0	11	2072	341	0	0	0	113	0	270
Future Volume (veh/h)	114	3031	0	11	2072	341	0	0	0	113	0	270
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	3224	0	12	2204	363	0	0	0	120	0	287
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	146	3179	0	60	3232	528	0	383	0	827	0	323
Arrive On Green	0.11	0.85	0.00	0.03	0.59	0.59	0.00	0.00	0.00	0.20	0.00	0.20
Sat Flow, veh/h	1781	5149	0	1781	5480	896	0	1870	0	3446	0	1580
Grp Volume(v), veh/h	121	3224	0	12	1892	675	0	0	0	120	0	287
Grp Sat Flow(s), veh/h/ln	1781	1662	0	1781	1570	1665	0	1870	0	1723	0	1580
Q Serve(g_s), s	7.9	75.3	0.0	0.8	32.5	33.0	0.0	0.0	0.0	3.4	0.0	20.8
Cycle Q Clear(g_c), s	7.9	75.3	0.0	0.8	32.5	33.0	0.0	0.0	0.0	3.4	0.0	20.8
Prop In Lane	1.00		0.00	1.00		0.54	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	3179	0	60	2778	982	0	383	0	827	0	323
V/C Ratio(X)	0.83	1.01	0.00	0.20	0.68	0.69	0.00	0.00	0.00	0.15	0.00	0.89
Avail Cap(c_a), veh/h	168	3179	0	168	2778	982	0	471	0	989	0	398
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.00	0.82	0.82	0.82	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	8.9	0.0	55.4	16.6	16.7	0.0	0.0	0.0	38.7	0.0	45.6
Incr Delay (d2), s/veh	13.6	15.5	0.0	0.5	1.1	3.2	0.0	0.0	0.0	0.0	0.0	16.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.9	9.6	0.0	0.3	10.7	12.1	0.0	0.0	0.0	1.5	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	65.3	24.4	0.0	55.9	17.7	19.9	0.0	0.0	0.0	38.7	0.0	61.9
LnGrp LOS	E	F	A	E	B	B	A	A	A	D	A	E
Approach Vol, veh/h	3345			2579			0			407		
Approach Delay, s/veh	25.9			18.5			0.0			55.1		
Approach LOS	C			B						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	80.6			29.0	14.1	74.9		29.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	62.6			29.7	11.1	62.6		29.7				
Max Q Clear Time (g_c+I), s	77.3			22.8	9.9	35.0		0.0				
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	26.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay 24.8

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱								
Traffic Volume (veh/h)	37	3125	1	15	2292	0	0	0	18	0	0	0
Future Volume (veh/h)	37	3125	1	15	2292	0	0	0	18	0	0	0
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						
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	39	3255	1	16	2388	0						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	54	4368	1	27	4155	0						
Arrive On Green	0.03	0.85	0.85	0.02	0.83	0.00						
Sat Flow, veh/h	1781	5147	2	1781	5149	0						
Grp Volume(v), veh/h	39	2101	1155	16	2388	0						
Grp Sat Flow(s), veh/h/ln	1781	1662	1826	1781	1662	0						
Q Serve(g_s), s	1.5	18.4	18.4	0.6	10.8	0.0						
Cycle Q Clear(g_c), s	1.5	18.4	18.4	0.6	10.8	0.0						
Prop In Lane	1.00		0.00	1.00		0.00						
Lane Grp Cap(c), veh/h	54	2820	1549	27	4155	0						
V/C Ratio(X)	0.72	0.75	0.75	0.59	0.57	0.00						
Avail Cap(c_a), veh/h	758	2828	1553	758	4242	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	33.9	2.2	2.2	34.5	1.9	0.0						
Incr Delay (d2), s/veh	6.6	1.6	2.8	7.3	0.5	0.0						
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%), veh/ln	0.7	0.6	1.2	0.3	0.2	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.5	3.8	5.0	41.8	2.4	0.0						
LnGrp LOS	D	A	A	D	A	A						
Approach Vol, veh/h	3295			2404								
Approach Delay, s/veh	4.6			2.6								
Approach LOS	A			A								
Timer - Assigned Phs	1	2			5	6						
Phs Duration (G+Y+Rc), s	5.5	65.0			6.5	64.0						
Change Period (Y+Rc), s	4.4	5.2			4.4	5.2						
Max Green Setting (Gmax), s	30.0	60.0			30.0	60.0						
Max Q Clear Time (g_c+I), s	12.6	20.4			3.5	12.8						
Green Ext Time (p_c), s	0.0	39.5			0.0	45.1						

Intersection Summary

HCM 6th Ctrl Delay	3.8
HCM 6th LOS	A

Intersection						
Int Delay, s/veh	41.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	261	0	0	1916	236
Future Vol, veh/h	0	261	0	0	1916	236
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	278	0	0	2038	251

Major/Minor	Minor2		Major2	
Conflicting Flow All	2164	1148	-	0
Stage 1	2164	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	5.74	7.14	-	-
Critical Hdwy Stg 1	6.64	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.82	3.92	-	-
Pot Cap-1 Maneuver	76	~ 165	-	-
Stage 1	44	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	76	~ 165	-	-
Mov Cap-2 Maneuver	76	-	-	-
Stage 1	44	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s\$	380.8	0
HCM LOS	F	

Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	-	165	-	-
HCM Lane V/C Ratio	-	1.683	-	-
HCM Control Delay (s)	0\$	380.8	-	-
HCM Lane LOS	A	F	-	-
HCM 95th %tile Q(veh)	-	19.4	-	-

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

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	647	28	18	665	319	34	57	40	200	29	142
Future Volume (veh/h)	97	647	28	18	665	319	34	57	40	200	29	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	727	31	20	747	358	38	64	45	225	33	160
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	135	1134	348	651	2668	824	192	321	242	357	486	426
Arrive On Green	0.05	0.15	0.15	0.37	0.52	0.52	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1781	5106	1568	1781	5106	1578	534	1175	886	1267	1777	1559
Grp Volume(v), veh/h	109	727	31	20	747	358	70	0	77	225	33	160
Grp Sat Flow(s),veh/h/ln	1781	1702	1568	1781	1702	1578	1084	0	1511	1267	1777	1559
Q Serve(g_s), s	7.3	16.1	2.0	0.9	9.8	16.8	2.7	0.0	4.7	19.8	1.7	10.0
Cycle Q Clear(g_c), s	7.3	16.1	2.0	0.9	9.8	16.8	12.7	0.0	4.7	24.5	1.7	10.0
Prop In Lane	1.00		1.00	1.00		1.00	0.54		0.59	1.00		1.00
Lane Grp Cap(c), veh/h	135	1134	348	651	2668	824	342	0	413	357	486	426
V/C Ratio(X)	0.81	0.64	0.09	0.03	0.28	0.43	0.21	0.00	0.19	0.63	0.07	0.38
Avail Cap(c_a), veh/h	313	1974	606	651	2668	824	561	0	646	553	760	666
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.97	0.97	0.97	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	46.6	40.6	24.4	16.0	17.7	36.5	0.0	33.4	42.8	32.3	35.3
Incr Delay (d2), s/veh	4.1	2.7	0.5	0.0	0.3	1.6	0.1	0.0	0.1	5.2	0.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	7.2	0.8	0.4	3.7	6.1	1.7	0.0	1.7	6.7	0.7	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	49.3	41.1	24.4	16.3	19.3	36.6	0.0	33.5	48.0	32.5	36.9
LnGrp LOS	E	D	D	C	B	B	D	A	C	D	C	D
Approach Vol, veh/h		867			1125			147			418	
Approach Delay, s/veh		50.4			17.4			35.0			42.5	
Approach LOS		D			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	50.0	32.3		37.7	13.5	68.8		37.7				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	7.3	* 46		51.3	21.1	32.2		51.3				
Max Q Clear Time (g_c+I1), s	2.9	18.1		26.5	9.3	18.8		14.7				
Green Ext Time (p_c), s	0.0	8.6		4.8	0.1	9.2		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			33.7									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳
Traffic Volume (veh/h)	48	485	1	0	460	385	1	0	0	277	0	31
Future Volume (veh/h)	48	485	1	0	460	385	1	0	0	277	0	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	533	1	0	505	0	1	0	0	336	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	956	2	876	2277		19	0	17	478	251	0
Arrive On Green	0.04	0.18	0.18	0.00	0.21	0.00	0.01	0.00	0.00	0.13	0.00	0.00
Sat Flow, veh/h	1781	5263	10	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	53	345	189	0	505	0	1	0	0	336	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	3.5	11.1	11.1	0.0	14.1	0.0	0.1	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear(g_c), s	3.5	11.1	11.1	0.0	14.1	0.0	0.1	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	68	619	340	876	2277		19	0	17	478	251	0
V/C Ratio(X)	0.77	0.56	0.56	0.00	0.22		0.05	0.00	0.00	0.70	0.00	0.00
Avail Cap(c_a), veh/h	224	1166	640	876	2277		157	0	140	1101	578	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.97	0.00	1.00	0.00	0.00	0.90	0.00	0.00
Uniform Delay (d), s/veh	57.2	44.7	44.7	0.0	22.6	0.0	58.7	0.0	0.0	49.7	0.0	0.0
Incr Delay (d2), s/veh	6.8	3.6	6.5	0.0	0.2	0.0	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 BackOfQ(50%),veh/ln	1.7	4.9	5.6	0.0	6.7	0.0	0.0	0.0	0.0	4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	48.3	51.2	0.0	22.8	0.0	59.1	0.0	0.0	50.3	0.0	0.0
LnGrp LOS	E	D	D	A	C		E	A	A	D	A	A
Approach Vol, veh/h	587			505			A			336		
Approach Delay, s/veh	50.6			22.8			59.1			50.3		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	64.9	26.9		22.0	9.0	82.8		6.2				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.9	* 41		37.1	15.1	36.1		10.6				
Max Q Clear Time (g_c+I), s	13.1	13.1		12.8	5.5	16.1		2.1				
Green Ext Time (p_c), s	0.0	8.7		0.6	0.0	5.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

2020 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	244	133	33	359	160	203	824	26	103	761	163
Future Volume (veh/h)	258	244	133	33	359	160	203	824	26	103	761	163
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	260	141	35	382	170	216	877	28	110	810	173
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	647	339	46	517	294	262	1801	57	154	1710	758
Arrive On Green	0.17	0.29	0.29	0.03	0.15	0.15	0.08	0.51	0.51	0.04	0.48	0.48
Sat Flow, veh/h	1781	2241	1174	1781	3554	1536	3456	3514	112	3456	3554	1576
Grp Volume(v), veh/h	274	204	197	35	382	170	216	443	462	110	810	173
Grp Sat Flow(s),veh/h/ln	1781	1777	1637	1781	1777	1536	1728	1777	1849	1728	1777	1576
Q Serve(g_s), s	22.8	13.9	14.6	2.9	15.4	10.2	9.2	24.3	24.3	4.7	23.0	5.2
Cycle Q Clear(g_c), s	22.8	13.9	14.6	2.9	15.4	10.2	9.2	24.3	24.3	4.7	23.0	5.2
Prop In Lane	1.00		0.72	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	295	513	473	46	517	294	262	911	948	154	1710	758
V/C Ratio(X)	0.93	0.40	0.42	0.77	0.74	0.58	0.82	0.49	0.49	0.72	0.47	0.23
Avail Cap(c_a), veh/h	387	668	616	82	734	388	544	911	948	258	1710	758
HCM Platoon Ratio	1.00	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	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.7	42.9	43.1	72.6	61.4	28.7	68.3	23.8	23.8	70.7	26.2	6.8
Incr Delay (d2), s/veh	21.9	0.2	0.2	9.3	1.1	0.6	2.5	1.9	1.8	2.3	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	6.2	6.0	1.5	7.1	3.9	4.2	10.8	11.2	2.1	10.1	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.6	43.0	43.3	82.0	62.5	29.3	70.8	25.6	25.5	73.1	27.1	7.5
LnGrp LOS	F	D	D	F	E	C	E	C	C	E	C	A
Approach Vol, veh/h	675			587			1121			1093		
Approach Delay, s/veh	59.6			54.0			34.3			28.6		
Approach LOS	E			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	82.2	8.2	48.5	15.8	77.5	30.0	26.7				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	1.2	* 57	6.9	56.4	23.6	43.8	32.6	* 31				
Max Q Clear Time (g_c+10), s	16.7	26.3	4.9	16.6	11.2	25.0	24.8	17.4				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.9	0.1	2.3	0.1	0.9				

Intersection Summary

HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	201	95	210	175	75	100	127	172	81	109	71
Future Volume (veh/h)	35	201	95	210	175	75	100	127	172	81	109	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.93	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	214	101	223	186	80	106	135	183	86	116	76
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	1311	660	309	807	635	136	763	471	112	714	308
Arrive On Green	0.03	0.37	0.37	0.09	0.43	0.43	0.08	0.21	0.21	0.06	0.20	0.20
Sat Flow, veh/h	1781	3554	1461	3456	1870	1471	1781	3554	1536	1781	3554	1534
Grp Volume(v), veh/h	37	214	101	223	186	80	106	135	183	86	116	76
Grp Sat Flow(s),veh/h/ln	1781	1777	1461	1728	1870	1471	1781	1777	1536	1781	1777	1534
Q Serve(g_s), s	1.8	3.6	3.6	5.6	5.6	2.9	5.2	2.7	8.3	4.2	2.4	3.7
Cycle Q Clear(g_c), s	1.8	3.6	3.6	5.6	5.6	2.9	5.2	2.7	8.3	4.2	2.4	3.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	48	1311	660	309	807	635	136	763	471	112	714	308
V/C Ratio(X)	0.77	0.16	0.15	0.72	0.23	0.13	0.78	0.18	0.39	0.77	0.16	0.25
Avail Cap(c_a), veh/h	604	1605	781	1171	845	664	604	1605	836	604	1605	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	18.8	14.6	39.2	15.9	15.1	40.2	28.4	24.3	40.9	29.2	29.7
Incr Delay (d2), s/veh	9.2	0.1	0.1	1.2	0.1	0.0	3.6	0.1	0.5	4.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.5	1.2	2.4	2.3	0.9	2.4	1.2	3.0	2.0	1.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	18.8	14.8	40.4	16.0	15.2	43.8	28.5	24.9	45.1	29.3	29.9
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		352			489			424			278	
Approach Delay, s/veh		21.1			27.0			30.8			34.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.3	38.6	12.2	24.5	7.8	44.1	10.9	25.7				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	7.6	5.6	7.2	5.7	3.8	7.6	6.2	10.3				
Green Ext Time (p_c), s	0.4	2.2	0.1	0.6	0.0	0.9	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			28.0									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	9	0	8	22	0	37	77	308	26	70	300	32
Future Volume (veh/h)	9	0	8	22	0	37	77	308	26	70	300	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.98	0.98		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	0	9	24	0	40	84	335	28	76	326	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	43	125	461	0	368	116	1542	126	108	1484	156
Arrive On Green	0.18	0.00	0.18	0.18	0.00	0.18	0.06	0.32	0.32	0.06	0.32	0.32
Sat Flow, veh/h	546	245	712	1393	0	1547	1781	4794	393	1781	4677	490
Grp Volume(v), veh/h	19	0	0	24	0	40	84	236	127	76	235	126
Grp Sat Flow(s), veh/h/ln	1504	0	0	1393	0	1547	1781	1702	1783	1781	1702	1763
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.7	1.5	1.7	1.7	1.4	1.7	1.7
Cycle Q Clear(g_c), s	0.3	0.0	0.0	0.4	0.0	0.7	1.5	1.7	1.7	1.4	1.7	1.7
Prop In Lane	0.53		0.47	1.00		1.00	1.00		0.22	1.00		0.28
Lane Grp Cap(c), veh/h	429	0	0	461	0	368	116	1095	574	108	1080	560
V/C Ratio(X)	0.04	0.00	0.00	0.05	0.00	0.11	0.73	0.22	0.22	0.70	0.22	0.22
Avail Cap(c_a), veh/h	1898	0	0	1873	0	1958	1608	6145	3219	1608	6145	3183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	0.0	0.0	11.5	0.0	10.0	15.2	8.2	8.2	15.3	8.3	8.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.1	0.3	3.1	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 BackOfQ(50%), veh/ln	0.1	0.0	0.0	0.1	0.0	0.2	0.6	0.4	0.5	0.6	0.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	0.0	0.0	11.5	0.0	10.0	18.5	8.3	8.5	18.4	8.4	8.6
LnGrp LOS	B	A	A	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	19			64			447			437		
Approach Delay, s/veh	11.4			10.6			10.3			10.2		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	16.1		10.7	6.6	15.9		10.7				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+1), s	13.4	3.7		2.3	3.5	3.7		2.7				
Green Ext Time (p_c), s	0.1	3.5		0.0	0.1	3.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay 10.3

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	10	27	40	49	13	334	628	110	41	433	190
Future Volume (veh/h)	18	10	27	40	49	13	334	628	110	41	433	190
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.75	1.00		0.75	1.00		0.94	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	11	29	43	53	14	359	675	118	44	466	204
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	488	311	55	484	308	394	1684	704	57	686	297
Arrive On Green	0.03	0.26	0.26	0.03	0.26	0.26	0.22	0.47	0.47	0.03	0.29	0.29
Sat Flow, veh/h	1781	1870	1191	1781	1870	1188	1781	3554	1486	1781	2339	1012
Grp Volume(v), veh/h	19	11	29	43	53	14	359	675	118	44	353	317
Grp Sat Flow(s),veh/h/ln	1781	1870	1191	1781	1870	1188	1781	1777	1486	1781	1777	1574
Q Serve(g_s), s	1.2	0.5	2.1	2.8	2.5	1.0	22.8	14.3	5.3	2.8	20.3	20.7
Cycle Q Clear(g_c), s	1.2	0.5	2.1	2.8	2.5	1.0	22.8	14.3	5.3	2.8	20.3	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	59	488	311	55	484	308	394	1684	704	57	521	462
V/C Ratio(X)	0.32	0.02	0.09	0.77	0.11	0.05	0.91	0.40	0.17	0.77	0.68	0.69
Avail Cap(c_a), veh/h	461	488	311	461	485	308	461	1841	770	461	921	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	31.8	32.4	55.7	32.7	32.2	44.0	19.8	17.4	55.6	36.1	36.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	8.3	0.0	0.0	21.3	0.2	0.1	8.1	4.2	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.6	1.4	1.1	0.3	12.3	5.9	1.8	1.4	9.3	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	31.8	32.5	64.0	32.8	32.2	65.3	20.0	17.5	63.7	40.3	41.2
LnGrp LOS	E	C	C	E	C	C	E	B	B	E	D	D
Approach Vol, veh/h	59			110			1152			714		
Approach Delay, s/veh	39.9			44.9			33.8			42.1		
Approach LOS	D			D			C			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	63.6	8.0	35.1	30.0	42.7	8.2	34.9				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+I), s	14.8	16.3	4.8	4.1	24.8	22.7	3.2	4.5				
Green Ext Time (p_c), s	0.0	7.6	0.0	0.1	0.8	11.2	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay 37.5

HCM 6th LOS D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	236	18	146	133	0	0	0	0	192	24	35
Future Volume (veh/h)	0	236	18	146	133	0	0	0	0	192	24	35
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	259	20	160	146	0				230	0	38
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	273	544	240	338	646	0				942	0	654
Arrive On Green	0.00	0.15	0.15	0.19	0.19	0.00				0.26	0.00	0.26
Sat Flow, veh/h	1781	3554	1564	1781	3572	0				3563	0	1557
Grp Volume(v), veh/h	0	259	20	160	146	0				230	0	38
Grp Sat Flow(s), veh/h/ln	1781	1777	1564	1781	1702	0				1781	0	1557
Q Serve(g_s), s	0.0	2.5	0.4	3.0	1.3	0.0				1.9	0.0	0.5
Cycle Q Clear(g_c), s	0.0	2.5	0.4	3.0	1.3	0.0				1.9	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	273	544	240	338	646	0				942	0	654
V/C Ratio(X)	0.00	0.48	0.08	0.47	0.23	0.00				0.24	0.00	0.06
Avail Cap(c_a), veh/h	2894	5773	2541	2894	5530	0				3376	0	1718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.3	13.4	13.3	12.7	0.0				10.7	0.0	6.4
Incr Delay (d2), s/veh	0.0	0.2	0.1	1.2	0.2	0.0				0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.0	0.7	0.1	0.9	0.4	0.0				0.6	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	14.5	13.5	14.5	12.9	0.0				10.7	0.0	6.4
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	279			306			268					
Approach Delay, s/veh	14.5			13.7			10.1					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	9.7			16.0			11.3					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+l1), s	4.5			3.9			5.0					
Green Ext Time (p_c), s	1.0			0.5			2.1					

Intersection Summary

HCM 6th Ctrl Delay 12.8

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	289	0	0	262	324	32	6	72	21	0	283
Future Volume (veh/h)	87	289	0	0	262	324	32	6	72	21	0	283
Initial Q (Qb), 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		0.97	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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	321	0	0	291	360	36	7	80	23	0	314
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	130	1612	0	0	567	501	166	12	134	27	0	370
Arrive On Green	0.07	0.45	0.00	0.00	0.32	0.32	0.09	0.09	0.09	0.25	0.00	0.25
Sat Flow, veh/h	1781	3647	0	0	1870	1570	1781	125	1434	108	0	1480
Grp Volume(v), veh/h	97	321	0	0	291	360	36	0	87	337	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1570	1781	0	1560	1588	0	0
Q Serve(g_s), s	3.9	4.0	0.0	0.0	9.7	14.8	1.4	0.0	3.9	14.7	0.0	0.0
Cycle Q Clear(g_c), s	3.9	4.0	0.0	0.0	9.7	14.8	1.4	0.0	3.9	14.7	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.92	0.07		0.93
Lane Grp Cap(c), veh/h	130	1612	0	0	567	501	166	0	145	397	0	0
V/C Ratio(X)	0.75	0.20	0.00	0.00	0.51	0.72	0.22	0.00	0.60	0.85	0.00	0.00
Avail Cap(c_a), veh/h	734	2927	0	0	1464	1293	978	0	856	872	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.1	12.0	0.0	0.0	20.2	21.9	30.6	0.0	31.7	26.0	0.0	0.0
Incr Delay (d2), s/veh	9.9	0.0	0.0	0.0	0.9	2.4	0.2	0.0	1.5	2.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.3	0.0	0.0	3.7	5.1	0.6	0.0	1.5	5.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	12.0	0.0	0.0	21.1	24.3	30.8	0.0	33.2	28.0	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	418				651		123				337	
Approach Delay, s/veh	19.2				22.8		32.5				28.0	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	37.4		22.2		9.8		27.6		13.2			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	6.0		16.7		5.9		16.8		5.9			
Green Ext Time (p_c), s	1.3		1.5		0.3		5.3		0.4			

Intersection Summary

HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	314	145	302	407	0	0	0	0	384	242	190
Future Volume (veh/h)	0	314	145	302	407	0	0	0	0	384	242	190
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	320	148	308	415	0				392	247	194
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1904	846	388	2489	0				652	342	283
Arrive On Green	0.00	0.54	0.54	0.22	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	3647	1579	3456	3647	0				3563	1870	1546
Grp Volume(v), veh/h	0	320	148	308	415	0				392	247	194
Grp Sat Flow(s),veh/h/ln	0	1777	1579	1728	1777	0				1781	1870	1546
Q Serve(g_s), s	0.0	3.9	4.0	7.1	0.0	0.0				8.5	10.4	9.8
Cycle Q Clear(g_c), s	0.0	3.9	4.0	7.1	0.0	0.0				8.5	10.4	9.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1904	846	388	2489	0				652	342	283
V/C Ratio(X)	0.00	0.17	0.17	0.79	0.17	0.00				0.60	0.72	0.69
Avail Cap(c_a), veh/h	0	1904	846	703	2489	0				1361	715	591
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	0.99	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	9.9	10.0	31.7	0.0	0.0				31.5	32.3	32.1
Incr Delay (d2), s/veh	0.0	0.2	0.4	1.4	0.1	0.0				0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	1.3	2.6	0.0	0.0				3.6	4.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.1	10.4	33.0	0.1	0.0				31.8	33.4	33.2
LnGrp LOS	A	B	B	C	A	A				C	C	C
Approach Vol, veh/h		468			723						833	
Approach Delay, s/veh		10.2			14.1						32.6	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.8	49.9		20.3		63.7						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I19, s	19.1	6.0		12.4		2.0						
Green Ext Time (p_c), s	0.4	2.4		2.0		3.0						

Intersection Summary

HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
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	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	187	522	0	0	573	555	128	268	22	0	0	0
Future Volume (veh/h)	187	522	0	0	573	555	128	268	22	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	189	527	0	0	579	561	129	271	22			
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1234	2665	0	0	1189	519	202	468	38			
Arrive On Green	0.71	1.00	0.00	0.00	0.33	0.33	0.13	0.13	0.13			
Sat Flow, veh/h	3456	3647	0	0	3647	1553	1514	3508	285			
Grp Volume(v), veh/h	189	527	0	0	579	561	153	129	140			
Grp Sat Flow(s), veh/h/ln	1728	1777	0	0	1777	1553	1795	1702	1809			
Q Serve(g_s), s	1.5	0.0	0.0	0.0	10.9	28.1	6.8	6.0	6.1			
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.0	10.9	28.1	6.8	6.0	6.1			
Prop In Lane	1.00		0.00	0.00		1.00	0.84		0.16			
Lane Grp Cap(c), veh/h	1234	2665	0	0	1189	519	240	227	241			
V/C Ratio(X)	0.15	0.20	0.00	0.00	0.49	1.08	0.64	0.57	0.58			
Avail Cap(c_a), veh/h	1234	2665	0	0	1189	519	600	569	605			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.94	0.94	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	7.9	0.0	0.0	0.0	22.2	28.0	34.5	34.1	34.2			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	1.4	62.8	1.1	0.8	0.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	0.5	0.1	0.0	0.0	4.4	18.4	3.0	2.5	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.0	0.2	0.0	0.0	23.6	90.8	35.5	35.0	35.0			
LnGrp LOS	A	A	A	A	C	F	D	C	C			
Approach Vol, veh/h	716			1140			422					
Approach Delay, s/veh	2.2			56.7			35.2					
Approach LOS	A			E			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.9			34.9			33.0			16.1		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			3.5			30.1			8.8		
Green Ext Time (p_c), s	4.3			0.4			0.0			1.5		

Intersection Summary

HCM 6th Ctrl Delay 35.6

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	17	44	13	867	19	0	0	0
Future Volume (veh/h)	0	0	0	0	17	44	13	867	19	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		0.97			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	22	56	17	1112	24			
Peak Hour Factor				0.78	0.78	0.78	0.78	0.78	0.78			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	30	78	122	3046	65			
Arrive On Green				0.00	0.07	0.07	0.61	0.61	0.61			
Sat Flow, veh/h				0	465	1185	23	4963	106			
Grp Volume(v), veh/h				0	0	78	423	350	380			
Grp Sat Flow(s),veh/h/ln				0	0	1650	1863	1549	1680			
Q Serve(g_s), s				0.0	0.0	1.6	0.0	3.9	3.9			
Cycle Q Clear(g_c), s				0.0	0.0	1.6	3.9	3.9	3.9			
Prop In Lane				0.00		0.72	0.04		0.06			
Lane Grp Cap(c), veh/h				0	0	108	1252	951	1031			
V/C Ratio(X)				0.00	0.00	0.72	0.34	0.37	0.37			
Avail Cap(c_a), veh/h				0	0	1907	3320	2685	2912			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	15.9	3.3	3.3	3.3			
Incr Delay (d2), s/veh				0.0	0.0	3.4	0.2	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.6	0.5	0.5	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	19.2	3.6	3.7	3.7			
LnGrp LOS				A	A	B	A	A	A			
Approach Vol, veh/h					78			1153				
Approach Delay, s/veh					19.2			3.6				
Approach LOS					B			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		26.8						7.8				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		5.9						3.6				
Green Ext Time (p_c), s		15.3						0.3				
Intersection Summary												
HCM 6th Ctrl Delay			4.6									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	135	69	338	464	60	222	235	61	60	257	94
Future Volume (veh/h)	61	135	69	338	464	60	222	235	61	60	257	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	145	74	363	499	65	239	253	66	65	276	101
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	344	289	410	593	77	284	1165	286	84	650	220
Arrive On Green	0.05	0.18	0.18	0.23	0.37	0.37	0.16	0.29	0.29	0.05	0.17	0.17
Sat Flow, veh/h	1781	1870	1572	1781	1620	211	1781	4064	999	1781	3734	1266
Grp Volume(v), veh/h	66	145	74	363	0	564	239	209	110	65	250	127
Grp Sat Flow(s),veh/h/ln	1781	1870	1572	1781	0	1831	1781	1702	1659	1781	1702	1595
Q Serve(g_s), s	2.8	5.2	3.0	14.8	0.0	21.3	9.8	3.5	3.8	2.7	4.9	5.4
Cycle Q Clear(g_c), s	2.8	5.2	3.0	14.8	0.0	21.3	9.8	3.5	3.8	2.7	4.9	5.4
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.60	1.00		0.79
Lane Grp Cap(c), veh/h	86	344	289	410	0	670	284	976	475	84	593	278
V/C Ratio(X)	0.77	0.42	0.26	0.89	0.00	0.84	0.84	0.21	0.23	0.77	0.42	0.46
Avail Cap(c_a), veh/h	710	993	835	710	0	973	710	2712	1321	710	2712	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.4	27.2	26.3	28.0	0.0	21.9	30.7	20.4	20.5	35.5	27.7	27.9
Incr Delay (d2), s/veh	5.4	0.3	0.2	3.3	0.0	4.6	2.6	0.2	0.5	5.5	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.3	1.1	6.5	0.0	9.5	4.2	1.3	1.4	1.3	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	27.5	26.5	31.3	0.0	26.5	33.3	20.6	21.0	41.0	28.6	30.0
LnGrp LOS	D	C	C	C	A	C	C	C	C	D	C	C
Approach Vol, veh/h	285			927			558			442		
Approach Delay, s/veh	30.3			28.4			26.1			30.8		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	26.9	21.7	18.7	16.4	18.4	8.0	32.4				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+I), s	14.7	5.8	16.8	7.2	11.8	7.4	4.8	23.3				
Green Ext Time (p_c), s	0.1	3.9	0.5	0.7	0.3	4.6	0.1	3.7				

Intersection Summary

HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	92	180	136	269	0	0	0	0	87	1424	580
Future Volume (veh/h)	0	92	180	136	269	0	0	0	0	87	1424	580
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	105	205	155	306	0				99	1618	659
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	472	400	244	486	0				1089	2198	856
Arrive On Green	0.00	0.25	0.25	0.25	0.25	0.00				0.61	0.61	0.61
Sat Flow, veh/h	0	1870	1585	711	2008	0				1781	3597	1401
Grp Volume(v), veh/h	0	105	205	220	241	0				99	1527	750
Grp Sat Flow(s),veh/h/ln	0	1870	1585	1018	1617	0				1781	1702	1594
Q Serve(g_s), s	0.0	4.2	10.6	16.3	12.5	0.0				2.2	30.2	32.9
Cycle Q Clear(g_c), s	0.0	4.2	10.6	20.5	12.5	0.0				2.2	30.2	32.9
Prop In Lane	0.00		1.00	0.71		0.00				1.00		0.88
Lane Grp Cap(c), veh/h	0	472	400	322	408	0				1089	2080	974
V/C Ratio(X)	0.00	0.22	0.51	0.68	0.59	0.00				0.09	0.73	0.77
Avail Cap(c_a), veh/h	0	588	499	397	509	0				1121	2141	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	28.2	30.6	36.2	31.3	0.0				7.6	13.1	13.6
Incr Delay (d2), s/veh	0.0	0.1	0.4	2.9	1.0	0.0				0.1	1.5	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
%ile BackOfQ(50%),veh/ln	0.0	1.9	4.1	5.1	5.0	0.0				0.8	10.7	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.3	31.0	39.2	32.3	0.0				7.7	14.6	17.7
LnGrp LOS	A	C	C	D	C	A				A	B	B
Approach Vol, veh/h		310			461						2376	
Approach Delay, s/veh		30.1			35.6						15.3	
Approach LOS		C			D						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				30.8		64.6		30.8				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				12.6		34.9		22.5				
Green Ext Time (p_c), s				0.7		23.3		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	81	17	82	0	33	22	367	934	21	0	0	0
Future Volume (veh/h)	81	17	82	0	33	22	367	934	21	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	85	18	86	0	35	23	386	983	22			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	347	52	1046	0	159	105	907	1808	40			
Arrive On Green	0.15	0.15	0.15	0.00	0.15	0.15	0.51	0.51	0.51			
Sat Flow, veh/h	938	342	1569	0	1045	686	1781	3551	79			
Grp Volume(v), veh/h	103	0	86	0	0	58	386	492	513			
Grp Sat Flow(s), veh/h/ln	1280	0	1569	0	0	1731	1781	1777	1853			
Q Serve(g_s), s	1.7	0.0	0.0	0.0	0.0	0.9	4.4	6.0	6.0			
Cycle Q Clear(g_c), s	2.6	0.0	0.0	0.0	0.0	0.9	4.4	6.0	6.0			
Prop In Lane	0.83		1.00	0.00		0.40	1.00		0.04			
Lane Grp Cap(c), veh/h	399	0	1046	0	0	264	907	905	943			
V/C Ratio(X)	0.26	0.00	0.08	0.00	0.00	0.22	0.43	0.54	0.54			
Avail Cap(c_a), veh/h	1497	0	2270	0	0	1613	1633	1628	1698			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	12.8	0.0	2.0	0.0	0.0	12.0	5.0	5.4	5.4			
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.0	0.0	0.2	0.3	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			
%ile BackOfQ(50%), veh/ln	0.6	0.0	0.8	0.0	0.0	0.3	0.8	1.2	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.1	0.0	2.0	0.0	0.0	12.1	5.3	5.9	5.9			
LnGrp LOS	B	A	A	A	A	B	A	A	A			
Approach Vol, veh/h		189			58			1391				
Approach Delay, s/veh		8.1			12.1			5.7				
Approach LOS		A			B			A				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		20.9		11.3				11.3				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+l1), s		8.0		4.6				2.9				
Green Ext Time (p_c), s		8.3		0.9				0.2				

Intersection Summary

HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	12	22	133	7	7	26	490	124	101	608	5
Future Volume (veh/h)	5	12	22	133	7	7	26	490	124	101	608	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	5	13	24	146	8	8	29	538	136	111	668	5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	470	142	262	450	207	207	47	2035	621	217	2273	17
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.03	0.40	0.40	0.06	0.43	0.43
Sat Flow, veh/h	1392	587	1084	1366	856	856	1781	5106	1557	3456	5227	39
Grp Volume(v), veh/h	5	0	37	146	0	16	29	538	136	111	435	238
Grp Sat Flow(s),veh/h/ln	1392	0	1671	1366	0	1712	1781	1702	1557	1728	1702	1862
Q Serve(g_s), s	0.1	0.0	0.9	4.7	0.0	0.4	0.8	3.6	2.9	1.6	4.2	4.2
Cycle Q Clear(g_c), s	0.5	0.0	0.9	5.5	0.0	0.4	0.8	3.6	2.9	1.6	4.2	4.2
Prop In Lane	1.00		0.65	1.00		0.50	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	470	0	404	450	0	414	47	2035	621	217	1480	810
V/C Ratio(X)	0.01	0.00	0.09	0.32	0.00	0.04	0.61	0.26	0.22	0.51	0.29	0.29
Avail Cap(c_a), veh/h	1243	0	1332	1209	0	1365	1065	6106	1862	2066	4071	2227
HCM Platoon Ratio	1.00	1.00	1.00	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	14.8	0.0	14.8	16.9	0.0	14.6	24.2	10.1	9.9	22.8	9.2	9.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.0	4.7	0.1	0.3	0.7	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 BackOfQ(50%),veh/ln	0.0	0.0	0.3	1.4	0.0	0.1	0.4	1.1	0.8	0.6	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	0.0	14.8	17.0	0.0	14.6	28.9	10.3	10.3	23.5	9.3	9.4
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	A	A
Approach Vol, veh/h	42			162			703			784		
Approach Delay, s/veh	14.8			16.8			11.0			11.3		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	7.5	25.7	16.9		5.7	27.5	16.9					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	13.6	5.6	2.9		2.8	6.2	7.5					
Green Ext Time (p_c), s	0.2	8.4	0.1		0.0	4.8	0.3					

Intersection Summary

HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

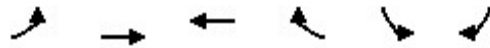
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↱			↑↑↑↑			↱			↱		
Traffic Vol, veh/h	0	2159	10	0	2456	0	0	0	3	0	0	0
Future Vol, veh/h	0	2159	10	0	2456	0	0	0	3	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	0	0	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	2373	11	0	2699	0	0	0	3	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1192	-	-	1351
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	154	0	0	120
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	154	-	-	120
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			28.9			0		
HCM LOS							D			A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1							
Capacity (veh/h)	154	-	-	-	-							
HCM Lane V/C Ratio	0.021	-	-	-	-							
HCM Control Delay (s)	28.9	-	-	-	0							
HCM Lane LOS	D	-	-	-	A							
HCM 95th %tile Q(veh)	0.1	-	-	-	-							

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰↱	↑↑↑	↑↑↑	↱	↰	↱
Traffic Volume (veh/h)	859	1439	2142	56	28	53
Future Volume (veh/h)	859	1439	2142	56	28	53
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	976	1635	2434	0	32	60
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	814	4279	2919		94	83
Arrive On Green	0.24	0.86	0.59	0.00	0.05	0.05
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	976	1635	2434	0	32	60
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	27.8	8.1	46.7	0.0	2.0	4.4
Cycle Q Clear(g_c), s	27.8	8.1	46.7	0.0	2.0	4.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	814	4279	2919		94	83
V/C Ratio(X)	1.20	0.38	0.83		0.34	0.72
Avail Cap(c_a), veh/h	814	4279	2919		479	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.42	0.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	1.8	19.8	0.0	53.9	55.1
Incr Delay (d2), s/veh	101.2	0.3	1.3	0.0	0.8	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.9	1.0	16.2	0.0	0.9	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	146.3	2.0	21.1	0.0	54.7	59.4
LnGrp LOS	F	A	C		D	E
Approach Vol, veh/h		2611	2434	A	92	
Approach Delay, s/veh		56.0	21.1		57.8	
Approach LOS		E	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		106.6		11.4	32.2	74.4
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		75.8		31.7	27.8	* 44
Max Q Clear Time (g_c+I1), s		10.1		6.4	29.8	48.7
Green Ext Time (p_c), s		49.9		0.1	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	682	61	48	1015	50	133	245	68	42	139	523
Future Volume (veh/h)	293	682	61	48	1015	50	133	245	68	42	139	523
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.94	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	315	733	66	52	1091	54	143	263	73	45	149	562
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	1543	139	195	1354	67	167	972	251	58	934	558
Arrive On Green	0.19	0.47	0.47	0.15	0.52	0.52	0.09	0.24	0.24	0.03	0.18	0.18
Sat Flow, veh/h	1781	3292	296	1781	3445	170	1781	3987	1030	1781	5106	1398
Grp Volume(v), veh/h	315	395	404	52	563	583	143	222	114	45	149	562
Grp Sat Flow(s),veh/h/ln	1781	1777	1812	1781	1777	1839	1781	1702	1613	1781	1702	1398
Q Serve(g_s), s	24.3	21.3	21.3	3.6	36.5	36.6	11.1	7.4	8.1	3.5	3.4	25.6
Cycle Q Clear(g_c), s	24.3	21.3	21.3	3.6	36.5	36.6	11.1	7.4	8.1	3.5	3.4	25.6
Prop In Lane	1.00		0.16	1.00		0.09	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	340	833	849	195	698	723	167	830	393	58	934	558
V/C Ratio(X)	0.93	0.47	0.48	0.27	0.81	0.81	0.86	0.27	0.29	0.77	0.16	1.01
Avail Cap(c_a), veh/h	382	833	849	195	698	723	244	830	393	244	934	558
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	0.98	0.98	0.98	0.96	0.96	0.96
Uniform Delay (d), s/veh	55.7	25.4	25.4	54.9	29.0	29.0	62.5	42.8	43.1	67.2	48.1	44.7
Incr Delay (d2), s/veh	27.0	1.9	1.9	2.8	8.3	8.1	12.6	0.2	0.4	7.6	0.1	39.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	9.2	9.4	1.8	15.3	15.8	5.6	3.1	3.3	1.7	1.5	24.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.7	27.4	27.3	57.7	37.3	37.1	75.1	43.0	43.5	74.8	48.3	84.0
LnGrp LOS	F	C	C	E	D	D	E	D	D	E	D	F
Approach Vol, veh/h	1114			1197			479			756		
Approach Delay, s/veh	43.0			38.1			52.7			76.4		
Approach LOS	D			D			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.0	39.1	21.1	70.8	17.5	30.6	31.1	60.8				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+1.5), s	15.5	10.1	5.6	23.3	13.1	27.6	26.3	38.6				
Green Ext Time (p_c), s	0.0	2.0	0.0	7.9	0.1	0.0	0.3	3.5				

Intersection Summary

HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑					↔↑↑	↑↑	↔
Traffic Volume (veh/h)	0	689	72	28	180	0	0	0	0	179	212	954
Future Volume (veh/h)	0	689	72	28	180	0	0	0	0	179	212	954
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	774	81	31	202	0				201	238	1072
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1639	171	56	2021	0				616	1293	537
Arrive On Green	0.00	1.00	1.00	0.03	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3335	339	1781	3647	0				1781	3741	1553
Grp Volume(v), veh/h	0	424	431	31	202	0				201	238	1072
Grp Sat Flow(s),veh/h/ln	0	1777	1803	1781	1777	0				1781	1870	1553
Q Serve(g_s), s	0.0	0.0	0.0	2.4	3.6	0.0				11.7	6.2	48.4
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.4	3.6	0.0				11.7	6.2	48.4
Prop In Lane	0.00		0.19	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	898	912	56	2021	0				616	1293	537
V/C Ratio(X)	0.00	0.47	0.47	0.55	0.10	0.00				0.33	0.18	2.00
Avail Cap(c_a), veh/h	0	898	912	313	2021	0				616	1293	537
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.92	0.83	0.83	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	66.8	13.8	0.0				33.8	32.0	45.8
Incr Delay (d2), s/veh	0.0	1.6	1.6	2.6	0.1	0.0				1.4	0.3	455.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	0.4	1.1	1.5	0.0				5.4	2.9	86.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.6	1.6	69.4	13.9	0.0				35.2	32.3	500.8
LnGrp LOS	A	A	A	E	B	A				D	C	F
Approach Vol, veh/h		855			233						1511	
Approach Delay, s/veh		1.6			21.3						365.1	
Approach LOS		A			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	8.8	77.4		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	14.4	2.0		50.4		5.6						
Green Ext Time (p_c), s	0.0	1.6		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	214.7
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↰			
Traffic Volume (veh/h)	615	342	0	0	182	138	45	104	35	0	0	0
Future Volume (veh/h)	615	342	0	0	182	138	45	104	35	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	654	364	0	0	194	147	48	111	37			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1529	1487	0	0	573	410	85	212	127			
Arrive On Green	0.44	0.80	0.00	0.00	0.29	0.29	0.08	0.08	0.08			
Sat Flow, veh/h	3456	1870	0	0	2059	1406	1029	2567	1537			
Grp Volume(v), veh/h	654	364	0	0	174	167	85	74	37			
Grp Sat Flow(s), veh/h/ln	1728	1870	0	0	1777	1595	1819	1777	1537			
Q Serve(g_s), s	10.4	4.0	0.0	0.0	6.2	6.6	3.6	3.2	1.8			
Cycle Q Clear(g_c), s	10.4	4.0	0.0	0.0	6.2	6.6	3.6	3.2	1.8			
Prop In Lane	1.00		0.00	0.00		0.88	0.57		1.00			
Lane Grp Cap(c), veh/h	1529	1487	0	0	518	465	150	147	127			
V/C Ratio(X)	0.43	0.24	0.00	0.00	0.34	0.36	0.57	0.51	0.29			
Avail Cap(c_a), veh/h	1529	1487	0	0	580	520	389	380	329			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00	0.00	1.00	1.00	0.98	0.98	0.98			
Uniform Delay (d), s/veh	15.3	2.1	0.0	0.0	22.3	22.4	35.3	35.1	34.5			
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.0	0.1	0.2	1.2	1.0	0.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	3.7	0.7	0.0	0.0	2.4	2.3	1.6	1.4	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	2.4	0.0	0.0	22.4	22.6	36.5	36.1	35.0			
LnGrp LOS	B	A	A	A	C	C	D	D	C			
Approach Vol, veh/h	1018			341			196					
Approach Delay, s/veh	10.8			22.5			36.1					
Approach LOS	B			C			D					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	68.5			40.3			28.2			11.5		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	6.0			12.4			8.6			5.6		
Green Ext Time (p_c), s	1.3			1.8			1.1			0.5		

Intersection Summary

HCM 6th Ctrl Delay 16.6

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	99	1721	518	0	0	1436
Future Volume (veh/h)	99	1721	518	0	0	1436
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	106	0	557	0	0	1544
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	156		2044	0	665	5173
Arrive On Green	0.09	0.00	0.41	0.00	0.00	0.82
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	106	0	557	0	0	1544
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	6.4	0.0	8.2	0.0	0.0	6.3
Cycle Q Clear(g_c), s	6.4	0.0	8.2	0.0	0.0	6.3
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	156		2044	0	665	5173
V/C Ratio(X)	0.68		0.27	0.00	0.00	0.30
Avail Cap(c_a), veh/h	487		2044	0	730	5173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.00	0.87	0.00	0.00	0.93
Uniform Delay (d), s/veh	48.7	0.0	21.6	0.0	0.0	2.3
Incr Delay (d2), s/veh	1.3	0.0	0.1	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	3.0	0.0	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.0	0.0	21.6	0.0	0.0	2.4
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	106	A	557			1544
Approach Delay, s/veh	50.0		21.6			2.4
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	45.5	50.0			95.5	14.5
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.5	20.6			45.1	30.1
Max Q Clear Time (g_c+I10), s	10.2	10.2			8.3	8.4
Green Ext Time (p_c), s	0.0	3.3			18.0	0.1

Intersection Summary

HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑		↑	↑↑↑			↑↑↑	
Traffic Volume (veh/h)	0	0	0	241	1717	131	111	284	0	0	176	25
Future Volume (veh/h)	0	0	0	241	1717	131	111	284	0	0	176	25
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				256	1827	139	118	302	0	0	187	27
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				333	2536	197	146	1439	0	0	632	86
Arrive On Green				0.19	0.19	0.19	0.16	0.56	0.00	0.00	0.14	0.14
Sat Flow, veh/h				580	4420	344	1781	5274	0	0	4631	605
Grp Volume(v), veh/h				813	681	728	118	302	0	0	140	74
Grp Sat Flow(s),veh/h/ln				1841	1702	1801	1781	1702	0	0	1702	1664
Q Serve(g_s), s				46.1	41.1	41.6	7.0	3.2	0.0	0.0	4.0	4.4
Cycle Q Clear(g_c), s				46.1	41.1	41.6	7.0	3.2	0.0	0.0	4.0	4.4
Prop In Lane				0.31		0.19	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1056	976	1033	146	1439	0	0	482	236
V/C Ratio(X)				0.77	0.70	0.70	0.81	0.21	0.00	0.00	0.29	0.32
Avail Cap(c_a), veh/h				1056	976	1033	155	1629	0	0	591	289
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.65	0.65	0.65	0.68	0.68	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				37.7	35.7	35.9	45.1	17.9	0.0	0.0	42.3	42.4
Incr Delay (d2), s/veh				3.6	2.7	2.7	16.4	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 BackOfQ(50%),veh/ln				23.7	19.4	20.8	3.5	1.2	0.0	0.0	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.3	38.4	38.5	61.5	18.0	0.0	0.0	42.5	42.9
LnGrp LOS				D	D	D	E	B	A	A	D	D
Approach Vol, veh/h					2222			420			214	
Approach Delay, s/veh					39.5			30.2			42.6	
Approach LOS					D			C			D	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				14.9	22.0		69.0	36.9				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+I1), s				9.0	6.4		48.1	5.2				
Green Ext Time (p_c), s				0.0	0.7		10.8	2.3				
Intersection Summary												
HCM 6th Ctrl Delay				38.4								
HCM 6th LOS				D								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	273	2055	0	0	0	0	0	172	57
Future Volume (veh/h)	0	0	0	273	2055	0	0	0	0	0	172	57
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				287	2163	0				0	181	60
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				409	3315	0				0	761	229
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				576	4838	0				0	4008	1155
Grp Volume(v), veh/h				918	1532	0				0	158	83
Grp Sat Flow(s),veh/h/ln				1842	1702	0				0	1702	1591
Q Serve(g_s), s				50.2	44.5	0.0				0.0	4.3	4.8
Cycle Q Clear(g_c), s				50.2	44.5	0.0				0.0	4.3	4.8
Prop In Lane				0.31		0.00				0.00		0.73
Lane Grp Cap(c), veh/h				1308	2417	0				0	675	315
V/C Ratio(X)				0.70	0.63	0.00				0.00	0.23	0.26
Avail Cap(c_a), veh/h				1308	2417	0				0	675	315
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				31.4	29.3	0.0				0.0	37.1	37.3
Incr Delay (d2), s/veh				3.2	1.3	0.0				0.0	0.8	2.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.8	20.6	0.0				0.0	1.9	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.6	30.5	0.0				0.0	37.9	39.3
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2450						241	
Approach Delay, s/veh					32.1						38.4	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.7		83.3						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.8		78.1						
Max Q Clear Time (g_c+l1), s				6.8		52.2						
Green Ext Time (p_c), s				0.3		4.5						
Intersection Summary												
HCM 6th Ctrl Delay											32.6	
HCM 6th LOS											C	

SDCRAA ADP EIR
21: India St & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2254	122	71	95	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2254	122	71	95	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2398	130	76	101	0			
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3473	186	296	435	0			
Arrive On Green				0.00	0.23	0.23	0.20	0.20	0.00			
Sat Flow, veh/h				0	5123	266	1448	2220	0			
Grp Volume(v), veh/h				0	1639	889	94	83	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1816	1798	1777	0			
Q Serve(g_s), s				0.0	48.4	49.3	4.8	4.3	0.0			
Cycle Q Clear(g_c), s				0.0	48.4	49.3	4.8	4.3	0.0			
Prop In Lane				0.00		0.15	0.81		0.00			
Lane Grp Cap(c), veh/h				0	2386	1273	368	363	0			
V/C Ratio(X)				0.00	0.69	0.70	0.26	0.23	0.00			
Avail Cap(c_a), veh/h				0	2386	1273	368	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	31.3	31.6	36.7	36.5	0.0			
Incr Delay (d2), s/veh				0.0	1.6	3.2	1.7	1.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	22.5	25.0	2.3	2.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	32.9	34.8	38.4	38.0	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					2528			177				
Approach Delay, s/veh					33.6			38.2				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						51.3		6.8				
Green Ext Time (p_c), s						21.4		0.8				
Intersection Summary												
HCM 6th Ctrl Delay											33.9	
HCM 6th LOS											C	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	334	2405	0	0	0	0	0	218	39
Future Volume (veh/h)	0	0	0	334	2405	0	0	0	0	0	218	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				341	2454	0				0	222	40
Peak Hour Factor				0.98	0.98	0.98				0.98	0.98	0.98
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				419	3257	0				0	733	312
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				597	4815	0				0	3647	1514
Grp Volume(v), veh/h				1051	1744	0				0	222	40
Grp Sat Flow(s),veh/h/ln				1840	1702	0				0	1777	1514
Q Serve(g_s), s				59.5	52.2	0.0				0.0	5.8	2.4
Cycle Q Clear(g_c), s				59.5	52.2	0.0				0.0	5.8	2.4
Prop In Lane				0.32		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1290	2386	0				0	733	312
V/C Ratio(X)				0.81	0.73	0.00				0.00	0.30	0.13
Avail Cap(c_a), veh/h				1290	2386	0				0	733	312
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				35.5	32.7	0.0				0.0	37.0	35.6
Incr Delay (d2), s/veh				5.7	2.0	0.0				0.0	1.1	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				31.2	24.3	0.0				0.0	2.7	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.2	34.7	0.0				0.0	38.0	36.4
LnGrp LOS				D	C	A				A	D	D
Approach Vol, veh/h					2795						262	
Approach Delay, s/veh					37.2						37.8	
Approach LOS					D						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				7.8		61.5						
Green Ext Time (p_c), s				1.3		14.5						
Intersection Summary												
HCM 6th Ctrl Delay											37.2	
HCM 6th LOS											D	



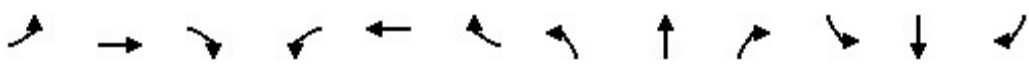
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	2694	83	49	47	0	0	0	0
Future Volume (veh/h)	0	0	0	0	2694	83	49	47	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	2777	86	51	48	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3704	113	305	326	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5255	156	1721	1933	0			
Grp Volume(v), veh/h				0	1849	1014	53	46	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1838	1784	1777	0			
Q Serve(g_s), s				0.0	35.5	36.8	2.8	2.4	0.0			
Cycle Q Clear(g_c), s				0.0	35.5	36.8	2.8	2.4	0.0			
Prop In Lane				0.00		0.08	0.96		0.00			
Lane Grp Cap(c), veh/h				0	2479	1339	316	315	0			
V/C Ratio(X)				0.00	0.75	0.76	0.17	0.15	0.00			
Avail Cap(c_a), veh/h				0	2479	1339	316	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	8.9	9.1	38.4	38.2	0.0			
Incr Delay (d2), s/veh				0.0	2.1	4.1	1.1	1.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	11.7	13.8	1.3	1.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	11.0	13.1	39.5	39.2	0.0			
LnGrp LOS				A	B	B	D	D	A			
Approach Vol, veh/h					2863			99				
Approach Delay, s/veh					11.7			39.4				
Approach LOS					B			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						38.8		4.8				
Green Ext Time (p_c), s						35.1		0.4				
Intersection Summary												
HCM 6th Ctrl Delay											12.7	
HCM 6th LOS											B	

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	133	476	41	99	0	0	0	17
Future Vol, veh/h	0	0	0	0	133	476	41	99	0	0	0	17
Conflicting Peds, #/hr	5	0	2	2	0	5	21	0	0	0	0	21
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	137	491	42	102	0	0	0	18
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	90	633	-	-	-	340
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	90	633	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	885	395	0	0	0	656
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	907	472	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	861	393	-	-	-	653
Mov Cap-2 Maneuver				-	-	-	861	393	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	883	470	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		17.3		10.7				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	393	-	-	653								
HCM Lane V/C Ratio	0.26	-	-	0.027								
HCM Control Delay (s)	17.3	-	-	10.7								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	512	83	1004	600	0
Future Volume (veh/h)	0	0	0	0	0	0	0	512	83	1004	600	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	582	94	1141	682	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	1149	357	3427	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.23	0.23	0.91	1.00	0.00
Sat Flow, veh/h		0					0	5149	1547	5023	1826	0
Grp Volume(v), veh/h		0.0					0	582	94	1141	682	0
Grp Sat Flow(s),veh/h/ln							0	1662	1547	1674	1826	0
Q Serve(g_s), s							0.0	11.2	5.5	3.3	0.0	0.0
Cycle Q Clear(g_c), s							0.0	11.2	5.5	3.3	0.0	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	1149	357	3427	1740	0
V/C Ratio(X)							0.00	0.51	0.26	0.33	0.39	0.00
Avail Cap(c_a), veh/h							0	1205	374	3427	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.95	0.95	0.00
Uniform Delay (d), s/veh							0.0	36.9	34.7	1.8	0.0	0.0
Incr Delay (d2), s/veh							0.0	0.9	1.0	0.1	0.6	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	4.5	2.1	0.7	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	37.8	35.7	1.8	0.6	0.0
LnGrp LOS							A	D	D	A	A	A
Approach Vol, veh/h								676			1823	
Approach Delay, s/veh								37.5			1.4	
Approach LOS								D			A	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	79.4	30.6					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+I1), s	5.3	13.2					2.0					
Green Ext Time (p_c), s	4.9	5.9					6.5					
Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
26: Pacific Hwy & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑					↑↑↑		↑	↑↑↑	
Traffic Volume (veh/h)	54	962	61	0	0	0	0	335	194	89	313	0
Future Volume (veh/h)	54	962	61	0	0	0	0	335	194	89	313	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98				1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No					No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	59	1057	67				0	368	213	98	344	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	160	3063	949				0	619	277	128	1500	0
Arrive On Green	0.20	0.20	0.20				0.00	0.18	0.18	0.14	0.59	0.00
Sat Flow, veh/h	262	4999	1549				0	3572	1521	1781	5274	0
Grp Volume(v), veh/h	418	698	67				0	368	213	98	344	0
Grp Sat Flow(s), veh/h/ln	1857	1702	1549				0	1702	1521	1781	1702	0
Q Serve(g_s), s	21.4	19.3	3.9				0.0	10.9	14.7	5.8	3.5	0.0
Cycle Q Clear(g_c), s	21.4	19.3	3.9				0.0	10.9	14.7	5.8	3.5	0.0
Prop In Lane	0.14		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	1138	2086	949				0	619	277	128	1500	0
V/C Ratio(X)	0.37	0.33	0.07				0.00	0.59	0.77	0.77	0.23	0.00
Avail Cap(c_a), veh/h	1138	2086	949				0	916	409	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.77	0.77	0.77				0.00	1.00	1.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	25.5	24.7	18.5				0.0	41.3	42.8	46.2	16.8	0.0
Incr Delay (d2), s/veh	0.7	0.3	0.1				0.0	1.0	5.7	3.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	0.8	8.9	1.4				0.0	4.6	5.9	2.5	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	25.0	18.6				0.0	42.3	48.5	49.5	16.8	0.0
LnGrp LOS	C	C	B				A	D	D	D	B	A
Approach Vol, veh/h		1183						581			442	
Approach Delay, s/veh		25.1						44.6			24.1	
Approach LOS		C						D			C	
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		72.3		37.7			12.3	25.4				
Change Period (Y+Rc), s		4.9		5.4			4.4	* 5.4				
Max Green Setting (Gmax), s		45.6		54.1			20.1	* 30				
Max Q Clear Time (g_c+I1), s		23.4		5.5			7.8	16.7				
Green Ext Time (p_c), s		11.6		1.9			0.1	3.3				

Intersection Summary

HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1218	32	0	0	0	0	0	0	144	312	0
Future Volume (veh/h)	0	1218	32	0	0	0	0	0	0	144	312	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1310	34							155	335	0
Peak Hour Factor	0.93	0.93	0.93							0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2981	77							502	1204	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5284	133							1530	3837	0
Grp Volume(v), veh/h	0	872	472							182	308	0
Grp Sat Flow(s),veh/h/ln	0	1702	1845							1794	1702	0
Q Serve(g_s), s	0.0	24.8	24.9							10.3	9.2	0.0
Cycle Q Clear(g_c), s	0.0	24.8	24.9							10.3	9.2	0.0
Prop In Lane	0.00		0.07							0.85		0.00
Lane Grp Cap(c), veh/h	0	1984	1075							589	1117	0
V/C Ratio(X)	0.00	0.44	0.44							0.31	0.28	0.00
Avail Cap(c_a), veh/h	0	1984	1075							589	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	28.6	28.6							37.5	37.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	1.3							1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.5	12.6							5.2	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.3	29.9							38.9	37.6	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1344									490	
Approach Delay, s/veh		29.5									38.1	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		69.0		41.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		64.1		36.1								
Max Q Clear Time (g_c+l1), s		26.9		12.3								
Green Ext Time (p_c), s		3.9		1.3								
Intersection Summary												
HCM 6th Ctrl Delay			31.8									
HCM 6th LOS			C									

SDCRAA ADP EIR
28: India St & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)
Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	50	1525	0	0	0	0	0	97	200	0	0	0
Future Volume (veh/h)	50	1525	0	0	0	0	0	97	200	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.94			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	54	1640	0				0	104	215			
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	91	2930	0				0	599	505			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	158	5277	0				0	1870	1496			
Grp Volume(v), veh/h	636	1058	0				0	104	215			
Grp Sat Flow(s),veh/h/ln	1862	1702	0				0	1777	1496			
Q Serve(g_s), s	34.3	30.9	0.0				0.0	4.5	12.2			
Cycle Q Clear(g_c), s	34.3	30.9	0.0				0.0	4.5	12.2			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1068	1953	0				0	599	505			
V/C Ratio(X)	0.60	0.54	0.00				0.00	0.17	0.43			
Avail Cap(c_a), veh/h	1068	1953	0				0	599	505			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	32.9	31.5	0.0				0.0	25.7	28.2			
Incr Delay (d2), s/veh	2.4	1.1	0.0				0.0	0.6	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.8	14.3	0.0				0.0	2.0	4.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.4	32.6	0.0				0.0	26.3	30.8			
LnGrp LOS	D	C	A				A	C	C			
Approach Vol, veh/h	1694					319						
Approach Delay, s/veh	33.6					29.4						
Approach LOS	C					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	68.0					42.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	63.1					37.1						
Max Q Clear Time (g_c+I1), s	36.3					14.2						
Green Ext Time (p_c), s	14.6					2.1						
Intersection Summary												
HCM 6th Ctrl Delay			33.0									
HCM 6th LOS			C									

SDCRAA ADP EIR
29: Columbia St & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	1816	67	0	0	0	0	0	0	205	347	0
Future Volume (veh/h)	0	1816	67	0	0	0	0	0	0	205	347	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	1853	68							209	354	0
Peak Hour Factor	0.98	0.98	0.98							0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3267	120							471	940	0
Arrive On Green	0.00	0.21	0.21							0.09	0.09	0.00
Sat Flow, veh/h	0	5223	185							1781	3647	0
Grp Volume(v), veh/h	0	1247	674							209	354	0
Grp Sat Flow(s),veh/h/ln	0	1702	1836							1781	1777	0
Q Serve(g_s), s	0.0	36.1	36.1							12.3	10.3	0.0
Cycle Q Clear(g_c), s	0.0	36.1	36.1							12.3	10.3	0.0
Prop In Lane	0.00		0.10							1.00		0.00
Lane Grp Cap(c), veh/h	0	2200	1187							471	940	0
V/C Ratio(X)	0.00	0.57	0.57							0.44	0.38	0.00
Avail Cap(c_a), veh/h	0	2200	1187							471	940	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	29.5	29.5							42.5	41.6	0.0
Incr Delay (d2), s/veh	0.0	1.1	2.0							3.0	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	16.7	18.3							6.3	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.6	31.5							45.5	42.8	0.0
LnGrp LOS	A	C	C							D	D	A
Approach Vol, veh/h		1921									563	
Approach Delay, s/veh		30.9									43.8	
Approach LOS		C									D	
Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		76.0		34.0								
Change Period (Y+Rc), s		4.9		4.9								
Max Green Setting (Gmax), s		71.1		29.1								
Max Q Clear Time (g_c+l1), s		38.1		14.3								
Green Ext Time (p_c), s		19.2		2.7								
Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									

SDCRAA ADP EIR
30: State St & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↑						↑↑					
Traffic Volume (veh/h)	61	1721	1	0	0	0	0	59	63	0	0	0
Future Volume (veh/h)	61	1721	1	0	0	0	0	59	63	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870			
Adj Flow Rate, veh/h	66	1871	1				0	64	68			
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	2				0	2	2			
Cap, veh/h	124	3732	2				0	357	318			
Arrive On Green	0.23	0.23	0.23				0.00	0.20	0.20			
Sat Flow, veh/h	174	5257	3				0	1870	1585			
Grp Volume(v), veh/h	706	587	645				0	64	68			
Grp Sat Flow(s),veh/h/ln	1862	1702	1870				0	1777	1585			
Q Serve(g_s), s	36.5	32.8	32.8				0.0	3.3	3.9			
Cycle Q Clear(g_c), s	36.5	32.8	32.8				0.0	3.3	3.9			
Prop In Lane	0.09		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1322	1208	1328				0	357	318			
V/C Ratio(X)	0.53	0.49	0.49				0.00	0.18	0.21			
Avail Cap(c_a), veh/h	1322	1208	1328				0	357	318			
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00			
Upstream Filter(l)	1.00	1.00	1.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	26.2	24.8	24.8				0.0	36.4	36.7			
Incr Delay (d2), s/veh	1.5	1.4	1.3				0.0	1.1	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ft	8.7	15.4	16.9				0.0	1.6	1.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	26.2	26.0				0.0	37.5	38.2			
LnGrp LOS	C	C	C				A	D	D			
Approach Vol, veh/h	1938						132					
Approach Delay, s/veh	26.7						37.9					
Approach LOS	C						D					
Timer - Assigned Phs	2						8					
Phs Duration (G+Y+Rc), s	83.0						27.0					
Change Period (Y+Rc), s	4.9						4.9					
Max Green Setting (Gmax), s	78.1						22.1					
Max Q Clear Time (g_c+l1), s	38.5						5.9					
Green Ext Time (p_c), s	20.3						0.6					
Intersection Summary												
HCM 6th Ctrl Delay	27.4											
HCM 6th LOS	C											



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	42	763	929	15	63	147
Future Volume (veh/h)	42	763	929	15	63	147
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	44	795	968	16	66	153
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	57	3962	3664	61	395	181
Arrive On Green	0.01	0.26	1.00	1.00	0.11	0.11
Sat Flow, veh/h	1781	5149	5213	83	3456	1585
Grp Volume(v), veh/h	44	795	637	347	66	153
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1809	1728	1585
Q Serve(g_s), s	2.9	14.7	0.0	0.0	2.0	11.2
Cycle Q Clear(g_c), s	2.9	14.7	0.0	0.0	2.0	11.2
Prop In Lane	1.00			0.05	1.00	1.00
Lane Grp Cap(c), veh/h	57	3962	2412	1313	395	181
V/C Ratio(X)	0.77	0.20	0.26	0.26	0.17	0.84
Avail Cap(c_a), veh/h	319	3962	2412	1313	884	406
HCM Platoon Ratio	0.33	0.33	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	58.0	14.3	0.0	0.0	47.2	51.2
Incr Delay (d2), s/veh	7.7	0.1	0.3	0.5	0.1	4.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	6.5	0.1	0.2	0.9	9.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	65.6	14.4	0.3	0.5	47.2	55.3
LnGrp LOS	E	B	A	A	D	E
Approach Vol, veh/h		839	984		219	
Approach Delay, s/veh		17.1	0.3		52.9	
Approach LOS		B	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		99.6		18.4	8.2	91.4
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		16.7		13.2	4.9	2.0
Green Ext Time (p_c), s		16.8		0.3	0.0	18.8

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	← ↑ ↑	← ↑ ↑	←	← ↑ ↑	← ↑ ↑	←	←	←	←	← ↑ ↑	←	←
Traffic Volume (veh/h)	130	732	12	13	933	5	0	13	14	44	0	13
Future Volume (veh/h)	130	732	12	13	933	5	0	13	14	44	0	13
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		0.96	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	755	12	13	962	0	0	13	14	45	0	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	747	3596	57	60	1567		35	16	17	227	0	102
Arrive On Green	0.84	1.00	1.00	0.03	0.31	0.00	0.00	0.02	0.02	0.07	0.00	0.07
Sat Flow, veh/h	1781	5052	80	1781	4985	1585	1781	807	869	3456	0	1556
Grp Volume(v), veh/h	134	496	271	13	962	0	0	0	27	45	0	13
Grp Sat Flow(s), veh/h/ln	1781	1662	1809	1781	1662	1585	1781	0	1676	1728	0	1556
Q Serve(g_s), s	1.7	0.0	0.0	0.8	19.3	0.0	0.0	0.0	1.9	1.5	0.0	0.9
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.8	19.3	0.0	0.0	0.0	1.9	1.5	0.0	0.9
Prop In Lane	1.00		0.04	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	747	2365	1288	60	1567		35	0	33	227	0	102
V/C Ratio(X)	0.18	0.21	0.21	0.22	0.61		0.00	0.00	0.81	0.20	0.00	0.13
Avail Cap(c_a), veh/h	747	2365	1288	168	1567		251	0	236	999	0	450
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.7	0.0	0.0	55.5	34.4	0.0	0.0	0.0	57.6	52.2	0.0	51.9
Incr Delay (d2), s/veh	0.0	0.2	0.4	0.7	1.8	0.0	0.0	0.0	15.5	0.2	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	0.1	0.1	0.4	7.8	0.0	0.0	0.0	1.0	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	5.7	0.2	0.4	56.1	36.2	0.0	0.0	0.0	73.1	52.3	0.0	52.1
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	901			975			27			58		
Approach Delay, s/veh	1.1			36.4			73.1			52.3		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	89.7			12.7	55.2	42.9		7.2				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+I), s	2.0			3.5	3.7	21.3		3.9				
Green Ext Time (p_c), s	0.0	7.7		0.1	0.1	8.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay 21.2

HCM 6th LOS C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	168	817	89	265	1308	0	96	33	156	0	22	128
Future Volume (veh/h)	168	817	89	265	1308	0	96	33	156	0	22	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	842	92	273	1348	0	99	34	0	0	23	132
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	500	2750	1030	331	2252	0	398	215		0	129	179
Arrive On Green	0.28	0.55	0.55	0.10	0.36	0.00	0.12	0.12	0.00	0.00	0.07	0.07
Sat Flow, veh/h	1781	4985	1537	3456	6537	0	3456	1870	1585	0	1870	2607
Grp Volume(v), veh/h	173	842	92	273	1348	0	99	34	0	0	23	132
Grp Sat Flow(s), veh/h/ln	1781	1662	1537	1728	1570	0	1728	1870	1585	0	1870	1304
Q Serve(g_s), s	9.1	10.8	2.5	9.2	20.7	0.0	3.1	1.9	0.0	0.0	1.4	5.9
Cycle Q Clear(g_c), s	9.1	10.8	2.5	9.2	20.7	0.0	3.1	1.9	0.0	0.0	1.4	5.9
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	500	2750	1030	331	2252	0	398	215		0	129	179
V/C Ratio(X)	0.35	0.31	0.09	0.82	0.60	0.00	0.25	0.16		0.00	0.18	0.74
Avail Cap(c_a), veh/h	500	2750	1030	410	2252	0	1084	586		0	239	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0.00	1.00	1.00
Uniform Delay (d), s/veh	33.8	14.3	7.0	52.4	30.9	0.0	47.6	47.1	0.0	0.0	51.8	53.9
Incr Delay (d2), s/veh	0.2	0.3	0.2	8.9	1.2	0.0	0.1	0.1	0.0	0.0	0.7	5.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.9	3.8	1.1	4.3	7.7	0.0	1.3	0.9	0.0	0.0	0.7	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.0	14.6	7.1	61.3	32.1	0.0	47.7	47.2	0.0	0.0	52.5	59.7
LnGrp LOS	C	B	A	E	C	A	D	D		A	D	E
Approach Vol, veh/h	1107			1621			133			155		
Approach Delay, s/veh	17.0			37.0			47.6			58.6		
Approach LOS	B			D			D			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	70.8		13.0	38.8	47.7		18.5				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	4.0	32.0		15.1	4.0	* 42		37.0				
Max Q Clear Time (g_c+I1), s	11.2	12.8		7.9	11.1	22.7		5.1				
Green Ext Time (p_c), s	0.1	9.5		0.3	0.0	15.3		0.3				

Intersection Summary

HCM 6th Ctrl Delay 31.2

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	16	4	6	12	13	188	9	21	293	62
Future Volume (veh/h)	36	5	16	4	6	12	13	188	9	21	293	62
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		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	16	17	4	8	12	14	200	10	22	312	66
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	44	46	32	63	80	193	1002	50	211	875	182
Arrive On Green	0.05	0.05	0.05	0.05	0.05	0.05	0.11	0.29	0.29	0.12	0.30	0.30
Sat Flow, veh/h	1781	822	873	613	1226	1558	1781	3436	171	1781	2902	603
Grp Volume(v), veh/h	30	0	33	12	0	12	14	103	107	22	189	189
Grp Sat Flow(s), veh/h/ln	1781	0	1695	1840	0	1558	1781	1777	1830	1781	1777	1728
Q Serve(g_s), s	0.5	0.0	0.6	0.2	0.0	0.2	0.2	1.4	1.5	0.4	2.7	2.8
Cycle Q Clear(g_c), s	0.5	0.0	0.6	0.2	0.0	0.2	0.2	1.4	1.5	0.4	2.7	2.8
Prop In Lane	1.00		0.52	0.33		1.00	1.00		0.09	1.00		0.35
Lane Grp Cap(c), veh/h	95	0	90	95	0	80	193	518	533	211	536	521
V/C Ratio(X)	0.32	0.00	0.37	0.13	0.00	0.15	0.07	0.20	0.20	0.10	0.35	0.36
Avail Cap(c_a), veh/h	2161	0	2056	2232	0	1890	1351	2694	2775	2161	2694	2621
HCM Platoon Ratio	1.00	1.00	1.00	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	15.0	0.0	15.1	14.9	0.0	14.9	13.2	8.8	8.8	13.0	9.0	9.0
Incr Delay (d2), s/veh	1.4	0.0	1.8	0.2	0.0	0.3	0.1	0.1	0.1	0.1	0.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	0.0	0.2	0.1	0.0	0.1	0.1	0.4	0.4	0.1	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.4	0.0	16.9	15.2	0.0	15.3	13.3	8.9	8.9	13.0	9.3	9.3
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	63			24			224			400		
Approach Delay, s/veh	16.7			15.2			9.2			9.5		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.9	13.6		5.8	7.6	13.9		5.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	40.0	50.0		40.0	25.0	50.0		40.0				
Max Q Clear Time (g_c+I), s	12.4	3.5		2.6	2.2	4.8		2.2				
Green Ext Time (p_c), s	0.0	1.0		0.2	0.0	1.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay 10.2

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	145	2	4	61	115	191
Future Volume (veh/h)	145	2	4	61	115	191
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	150	0	4	0	119	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	586	308	1030		223	
Arrive On Green	0.16	0.00	0.55	0.00	0.06	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	150	0	4	0	119	0
Grp Sat Flow(s), veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	2.0	0.0	0.1	0.0	1.8	0.0
Cycle Q Clear(g_c), s	2.0	0.0	0.1	0.0	1.8	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	586	308	1030		223	
V/C Ratio(X)	0.26	0.00	0.00		0.53	
Avail Cap(c_a), veh/h	3270	1717	1030		2537	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	0.0	5.5	0.0	24.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	2.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	0.0	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.1	0.0	5.5	0.0	26.7	0.0
LnGrp LOS	C	A	A		C	
Approach Vol, veh/h		150	4	A	119	A
Approach Delay, s/veh		20.1	5.5		26.7	
Approach LOS		C	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.0		7.5		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+I1), s		4.0		3.8		2.1
Green Ext Time (p_c), s		0.5		0.4		0.0

Intersection Summary

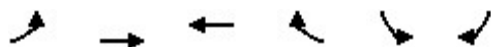
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Traffic Vol, veh/h	9	110	53	0	0	2
Future Vol, veh/h	9	110	53	0	0	2
Conflicting Peds, #/hr	7	0	0	7	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	128	62	0	0	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	69	0	-	0	154	40
Stage 1	-	-	-	-	69	-
Stage 2	-	-	-	-	85	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1530	-	-	-	822	1022
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1520	-	-	-	805	1013
Mov Cap-2 Maneuver	-	-	-	-	805	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	922	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.6	0		8.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1520	-	-	-	1013	
HCM Lane V/C Ratio	0.007	-	-	-	0.002	
HCM Control Delay (s)	7.4	0	-	-	8.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1975	2751	0	0	0
Future Volume (veh/h)	0	1975	2751	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	0	2079	2896	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	2	4761	7063		3	1
Arrive On Green	0.00	0.96	0.96	0.00	0.00	0.00
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	0	2079	2896	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	0.0	3.8	3.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.8	3.4	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2	4761	7063		3	1
V/C Ratio(X)	0.00	0.44	0.41		0.00	0.00
Avail Cap(c_a), veh/h	319	4761	7063		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.2	0.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.5	0.4	0.0	0.0	0.0
LnGrp LOS	A	A	A		A	A
Approach Vol, veh/h		2079	2896	A	0	
Approach Delay, s/veh		0.5	0.4		0.0	
Approach LOS		A	A			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.0		0.0	0.0	118.0
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		5.8		0.0	0.0	5.4
Green Ext Time (p_c), s		64.8		0.0	0.0	51.4
Intersection Summary						
HCM 6th Ctrl Delay			0.4			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	2243	18	62	1083	102	6	0	85	3	0	0
Future Volume (veh/h)	15	2243	18	62	1083	102	6	0	85	3	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	2386	19	66	1152	109	6	0	90	3	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	60	4792	1178	110	4468	420	176	0	116	162	152	0
Arrive On Green	0.03	0.76	0.76	0.06	1.00	1.00	0.08	0.00	0.08	0.08	0.00	0.00
Sat Flow, veh/h	1781	6281	1543	3456	5870	552	1412	0	1421	1303	1870	0
Grp Volume(v), veh/h	16	2386	19	66	923	338	6	0	90	3	0	0
Grp Sat Flow(s), veh/h/ln	1781	1570	1543	1728	1570	1711	1412	0	1421	1303	1870	0
Q Serve(g_s), s	1.0	17.1	0.3	2.2	0.0	0.0	0.5	0.0	7.3	0.3	0.0	0.0
Cycle Q Clear(g_c), s	1.0	17.1	0.3	2.2	0.0	0.0	0.5	0.0	7.3	0.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.32	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	60	4792	1178	110	3585	1302	176	0	116	162	152	0
V/C Ratio(X)	0.26	0.50	0.02	0.60	0.26	0.26	0.03	0.00	0.78	0.02	0.00	0.00
Avail Cap(c_a), veh/h	168	4792	1178	618	3585	1302	357	0	298	329	392	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.6	5.3	3.4	54.5	0.0	0.0	50.0	0.0	53.2	50.3	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.4	0.0	1.9	0.2	0.5	0.0	0.0	4.2	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	4.2	0.1	0.9	0.1	0.2	0.2	0.0	2.8	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	56.4	5.7	3.4	56.4	0.2	0.5	50.0	0.0	57.4	50.4	0.0	0.0
LnGrp LOS	E	A	A	E	A	A	D	A	E	D	A	A
Approach Vol, veh/h	2421			1327			96			3		
Approach Delay, s/veh	6.0			3.0			56.9			50.4		
Approach LOS	A			A			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	95.3		14.5	8.4	95.1		14.5				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	21.5	57.6		24.7	11.1	67.6		24.7				
Max Q Clear Time (g_c+14.2), s	14.2	19.1		2.7	3.0	2.0		9.3				
Green Ext Time (p_c), s	0.1	36.5		0.0	0.0	28.7		0.1				

Intersection Summary

HCM 6th Ctrl Delay 6.3

HCM 6th LOS A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱				↰ ↱		↰ ↱ ↱	↱	
Traffic Volume (veh/h)	11	2167	0	6	1072	72	0	0	0	5	0	5
Future Volume (veh/h)	11	2167	0	6	1072	72	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	12	2281	0	6	1128	76	0	0	0	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	20	4112	0	60	5131	344	0	33	0	181	0	27
Arrive On Green	0.01	1.00	0.00	0.03	0.85	0.85	0.00	0.00	0.00	0.02	0.00	0.02
Sat Flow, veh/h	1781	5149	0	1781	6052	406	0	1870	0	3396	0	1571
Grp Volume(v), veh/h	12	2281	0	6	877	327	0	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	0	1781	1570	1747	0	1870	0	1698	0	1571
Q Serve(g_s), s	0.8	0.0	0.0	0.4	4.1	4.1	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.8	0.0	0.0	0.4	4.1	4.1	0.0	0.0	0.0	0.2	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.23	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	4112	0	60	3994	1481	0	33	0	181	0	27
V/C Ratio(X)	0.61	0.55	0.00	0.10	0.22	0.22	0.00	0.00	0.00	0.03	0.00	0.18
Avail Cap(c_a), veh/h	168	4112	0	168	3994	1481	0	471	0	977	0	395
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.00	0.97	0.97	0.97	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	0.0	0.0	55.3	1.7	1.7	0.0	0.0	0.0	57.0	0.0	57.1
Incr Delay (d2), s/veh	9.4	0.5	0.0	0.3	0.1	0.3	0.0	0.0	0.0	0.0	0.0	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.4	0.2	0.0	0.2	0.5	0.7	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	67.3	0.5	0.0	55.5	1.8	2.0	0.0	0.0	0.0	57.1	0.0	58.3
LnGrp LOS	E	A	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	2293			1210			0			10		
Approach Delay, s/veh	0.8			2.1			0.0			57.7		
Approach LOS	A			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	102.6			7.0	5.7	105.3		7.0				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	62.6			29.7	11.1	62.6		29.7				
Max Q Clear Time (g_c+I), s	2.0			2.4	2.8	6.1		0.0				
Green Ext Time (p_c), s	0.0	53.4		0.0	0.0	23.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	1.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑	↑↑↑		↰ ↑↑↑	↑↑↑							
Traffic Volume (veh/h)	0	2133	2	31	1259	0	0	0	19	0	0	0
Future Volume (veh/h)	0	2133	2	31	1259	0	0	0	19	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0						
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00						
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00						
Work Zone On Approach		No			No							
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	0	2294	2	33	1354	0						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	3	4276	4	49	4603	0						
Arrive On Green	0.00	0.83	0.83	0.03	0.92	0.00						
Sat Flow, veh/h	1781	5143	4	1781	5149	0						
Grp Volume(v), veh/h	0	1482	814	33	1354	0						
Grp Sat Flow(s), veh/h/ln	1781	1662	1825	1781	1662	0						
Q Serve(g_s), s	0.0	9.2	9.2	1.2	1.9	0.0						
Cycle Q Clear(g_c), s	0.0	9.2	9.2	1.2	1.9	0.0						
Prop In Lane	1.00		0.00	1.00		0.00						
Lane Grp Cap(c), veh/h	3	2763	1517	49	4603	0						
V/C Ratio(X)	0.00	0.54	0.54	0.68	0.29	0.00						
Avail Cap(c_a), veh/h	787	2936	1612	787	4603	0						
HCM Platoon Ratio	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	0.00						
Uniform Delay (d), s/veh	0.0	1.7	1.7	32.7	0.3	0.0						
Incr Delay (d2), s/veh	0.0	0.5	1.0	6.0	0.1	0.0						
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%), veh/ln	0.0	0.2	0.4	0.6	0.1	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	2.3	2.7	38.8	0.4	0.0						
LnGrp LOS	A	A	A	D	A	A						
Approach Vol, veh/h		2296			1387							
Approach Delay, s/veh		2.4			1.3							
Approach LOS		A			A							
Timer - Assigned Phs	1	2			5	6						
Phs Duration (G+Y+Rc), s	61.7				0.0	67.9						
Change Period (Y+Rc), s	4.4	5.2			4.4	5.2						
Max Green Setting (Gmax), s	30.0	60.0			30.0	60.0						
Max Q Clear Time (g_c+I), s	13.2	11.2			0.0	3.9						
Green Ext Time (p_c), s	0.0	45.2			0.0	33.5						
Intersection Summary												
HCM 6th Ctrl Delay			2.0									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	13.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Vol, veh/h	0	164	0	0	1418	688
Future Vol, veh/h	0	164	0	0	1418	688
Conflicting Peds, #/hr	0	0	10	0	0	10
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	182	0	0	1576	764
Major/Minor	Minor2		Major2			
Conflicting Flow All	1968	1180			-	0
Stage 1	1968	-			-	-
Stage 2	0	-			-	-
Critical Hdwy	5.74	7.14			-	-
Critical Hdwy Stg 1	6.64	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	3.82	3.92			-	-
Pot Cap-1 Maneuver	97	~ 157			-	-
Stage 1	60	-			-	-
Stage 2	-	-			-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	95	~ 156			-	-
Mov Cap-2 Maneuver	95	-			-	-
Stage 1	59	-			-	-
Stage 2	-	-			-	-
Approach	EB		SB			
HCM Control Delay, s	182.3		0			
HCM LOS	F					
Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR		
Capacity (veh/h)		- 156	-	-		
HCM Lane V/C Ratio		- 1.168	-	-		
HCM Control Delay (s)		0 182.3	-	-		
HCM Lane LOS		A F	-	-		
HCM 95th %tile Q(veh)		- 10.1	-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	127	583	132	71	688	306	51	35	27	177	90	127
Future Volume (veh/h)	127	583	132	71	688	306	51	35	27	177	90	127
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.99	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	655	148	80	773	344	57	39	30	199	101	143
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	168	2907	879	101	2714	823	243	218	171	337	433	376
Arrive On Green	0.19	1.00	1.00	0.11	1.00	1.00	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	5106	1545	1781	5106	1548	753	896	702	1318	1777	1545
Grp Volume(v), veh/h	143	655	148	80	773	344	59	0	67	199	101	143
Grp Sat Flow(s),veh/h/ln	1781	1702	1545	1781	1702	1548	786	0	1565	1318	1777	1545
Q Serve(g_s), s	9.2	0.0	0.0	5.2	0.0	0.0	5.2	0.0	4.0	16.6	5.4	9.1
Cycle Q Clear(g_c), s	9.2	0.0	0.0	5.2	0.0	0.0	14.3	0.0	4.0	20.6	5.4	9.1
Prop In Lane	1.00		1.00	1.00		1.00	0.96		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	168	2907	879	101	2714	823	251	0	381	337	433	376
V/C Ratio(X)	0.85	0.23	0.17	0.79	0.28	0.42	0.24	0.00	0.18	0.59	0.23	0.38
Avail Cap(c_a), veh/h	319	2907	879	319	2714	823	315	0	468	411	532	462
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	0.0	0.0	51.6	0.0	0.0	43.0	0.0	35.3	43.4	35.8	37.2
Incr Delay (d2), s/veh	4.2	0.2	0.4	4.9	0.3	1.5	0.2	0.0	0.1	4.7	0.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	0.1	2.3	0.1	0.3	1.5	0.0	1.5	5.8	2.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	0.2	0.4	56.6	0.3	1.5	43.1	0.0	35.4	48.1	36.6	39.0
LnGrp LOS	D	A	A	E	A	A	D	A	D	D	D	D
Approach Vol, veh/h		946			1197			126			443	
Approach Delay, s/veh		7.9			4.4			39.0			42.6	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	73.3		33.6	15.6	68.8		33.6				
Change Period (Y+Rc), s	4.4	* 6.1		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	21.1	* 47		35.3	21.1	46.2		35.3				
Max Q Clear Time (g_c+I1), s	7.2	2.0		22.6	11.2	2.0		16.3				
Green Ext Time (p_c), s	0.1	9.7		3.7	0.1	20.0		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	427	0	0	558	265	0	0	0	391	0	25
Future Volume (veh/h)	15	427	0	0	558	265	0	0	0	391	0	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	502	0	0	656	0	0	0	0	487	0	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	2628	0	2	2442		0	2	1	571	300	0
Arrive On Green	0.02	0.74	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.16	0.00	0.00
Sat Flow, veh/h	1781	3647	0	1781	3554	1585	0	1870	1585	3556	1870	0
Grp Volume(v), veh/h	18	502	0	0	656	0	0	0	0	487	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1781	1777	1585	0	1870	1585	1778	1870	0
Q Serve(g_s), s	1.2	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0	0.0
Cycle Q Clear(g_c), s	1.2	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	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	27	2628	0	2	2442		0	2	1	571	300	0
V/C Ratio(X)	0.67	0.19	0.00	0.00	0.27		0.00	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	152	2628	0	152	2442		0	157	133	1118	588	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.80	0.00	0.00
Uniform Delay (d), s/veh	57.8	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.2	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	4.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	49.3	0.0	0.0
LnGrp LOS	E	A	A	A	A		A	A	A	D	A	A
Approach Vol, veh/h	520			656			0			487		
Approach Delay, s/veh	7.0			0.3			0.0			49.3		
Approach LOS	A			A						D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	93.2		24.8	6.2	87.0		0.0				
Change Period (Y+Rc), s	4.4	* 5.9		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.0	* 41		37.1	10.1	39.8		9.9				
Max Q Clear Time (g_c+I), s	7.1	7.1		17.7	3.2	2.0		0.0				
Green Ext Time (p_c), s	0.0	9.2		0.9	0.0	9.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: AM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	327	357	176	72	197	101	114	642	83	130	853	103
Future Volume (veh/h)	327	357	176	72	197	101	114	642	83	130	853	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	344	376	185	76	207	106	120	676	87	137	898	108
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	369	627	303	97	411	266	175	1426	183	192	1620	708
Arrive On Green	0.21	0.27	0.27	0.05	0.12	0.12	0.05	0.45	0.45	0.06	0.46	0.46
Sat Flow, veh/h	1781	2299	1111	1781	3554	1536	3456	3163	407	3456	3554	1552
Grp Volume(v), veh/h	344	289	272	76	207	106	120	379	384	137	898	108
Grp Sat Flow(s),veh/h/ln	1781	1777	1633	1781	1777	1536	1728	1777	1793	1728	1777	1552
Q Serve(g_s), s	22.0	16.4	16.8	4.9	6.3	4.3	4.0	17.3	17.3	4.5	21.3	2.1
Cycle Q Clear(g_c), s	22.0	16.4	16.8	4.9	6.3	4.3	4.0	17.3	17.3	4.5	21.3	2.1
Prop In Lane	1.00		0.68	1.00		1.00	1.00		0.23	1.00		1.00
Lane Grp Cap(c), veh/h	369	485	446	97	411	266	175	801	808	192	1620	708
V/C Ratio(X)	0.93	0.60	0.61	0.79	0.50	0.40	0.69	0.47	0.47	0.71	0.55	0.15
Avail Cap(c_a), veh/h	393	685	629	147	888	472	286	801	808	209	1620	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	36.6	36.8	54.2	48.2	19.3	54.2	22.2	22.2	53.9	23.0	3.8
Incr Delay (d2), s/veh	27.1	0.4	0.5	6.8	0.4	0.4	1.8	2.0	2.0	8.1	1.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	7.1	6.8	2.4	2.8	1.8	1.8	7.6	7.7	2.2	9.1	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.3	37.1	37.3	61.0	48.5	19.7	56.0	24.2	24.2	62.0	24.3	4.2
LnGrp LOS	E	D	D	E	D	B	E	C	C	E	C	A
Approach Vol, veh/h	905			389			883			1143		
Approach Delay, s/veh	50.5			43.1			28.6			27.0		
Approach LOS	D			D			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	57.6	10.7	36.8	10.3	58.2	29.2	18.3					
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	36	* 36	9.6	44.7	9.6	32.8	25.6	* 29				
Max Q Clear Time (g_c+10), s	19.3	19.3	6.9	18.8	6.0	23.3	24.0	8.3				
Green Ext Time (p_c), s	0.0	1.6	0.0	1.3	0.0	2.1	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	525	150	228	222	72	171	175	560	118	232	82
Future Volume (veh/h)	74	525	150	228	222	72	171	175	560	118	232	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.92	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	565	161	245	239	77	184	188	602	127	249	88
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	942	593	313	557	454	214	1255	658	155	1137	421
Arrive On Green	0.06	0.26	0.26	0.09	0.30	0.30	0.12	0.35	0.35	0.09	0.32	0.32
Sat Flow, veh/h	1781	3554	1520	3456	1870	1526	1781	3554	1458	1781	3554	1314
Grp Volume(v), veh/h	80	565	161	245	239	77	184	188	602	127	249	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1520	1728	1870	1526	1781	1777	1458	1781	1777	1314
Q Serve(g_s), s	5.1	15.9	8.3	8.0	11.8	4.3	11.6	4.1	40.5	8.0	5.9	5.6
Cycle Q Clear(g_c), s	5.1	15.9	8.3	8.0	11.8	4.3	11.6	4.1	40.5	8.0	5.9	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	103	942	593	313	557	454	214	1255	658	155	1137	421
V/C Ratio(X)	0.78	0.60	0.27	0.78	0.43	0.17	0.86	0.15	0.91	0.82	0.22	0.21
Avail Cap(c_a), veh/h	466	1240	721	905	653	533	466	1255	658	466	1240	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	53.3	36.8	24.2	51.0	32.4	29.8	49.4	25.3	30.2	51.4	28.5	28.4
Incr Delay (d2), s/veh	4.7	0.7	0.3	1.6	0.3	0.1	3.8	0.1	17.4	4.0	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 BackOfQ(50%),veh/ln	2.4	7.0	3.1	3.5	5.4	1.6	5.4	1.8	18.4	3.8	2.5	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	37.6	24.5	52.7	32.7	29.8	53.3	25.4	47.6	55.4	28.5	28.5
LnGrp LOS	E	D	C	D	C	C	D	C	D	E	C	C
Approach Vol, veh/h		806			561			974			464	
Approach Delay, s/veh		37.0			41.0			44.4			35.9	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8	36.3	19.2	43.4	12.0	40.0	15.4	47.2				
Change Period (Y+Rc), s	5.4	5.9	5.4	6.7	5.4	5.9	5.4	6.7				
Max Green Setting (Gmax), s	30.0	40.0	30.0	40.0	30.0	40.0	30.0	40.0				
Max Q Clear Time (g_c+I1), s	10.0	17.9	13.6	7.9	7.1	13.8	10.0	42.5				
Green Ext Time (p_c), s	0.4	5.4	0.2	1.3	0.1	1.1	0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			40.2									
HCM 6th LOS			D									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (veh/h)	75	0	123	65	0	73	26	646	26	68	535	16
Future Volume (veh/h)	75	0	123	65	0	73	26	646	26	68	535	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.97	0.99		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	0	140	74	0	83	30	734	30	77	608	18
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	226	42	267	523	0	531	49	1712	70	98	1875	55
Arrive On Green	0.29	0.00	0.29	0.29	0.00	0.29	0.03	0.34	0.34	0.06	0.37	0.37
Sat Flow, veh/h	414	145	921	1272	0	1531	1781	5030	205	1781	5095	150
Grp Volume(v), veh/h	225	0	0	74	0	83	30	496	268	77	406	220
Grp Sat Flow(s), veh/h/ln	1480	0	0	1272	0	1531	1781	1702	1831	1781	1702	1842
Q Serve(g_s), s	2.5	0.0	0.0	0.0	0.0	1.8	0.8	5.3	5.3	2.0	4.0	4.0
Cycle Q Clear(g_c), s	5.6	0.0	0.0	2.0	0.0	1.8	0.8	5.3	5.3	2.0	4.0	4.0
Prop In Lane	0.38		0.62	1.00		1.00	1.00		0.11	1.00		0.08
Lane Grp Cap(c), veh/h	535	0	0	523	0	531	49	1158	623	98	1252	678
V/C Ratio(X)	0.42	0.00	0.00	0.14	0.00	0.16	0.61	0.43	0.43	0.78	0.32	0.33
Avail Cap(c_a), veh/h	1346	0	0	1220	0	1398	1144	4372	2351	1144	4372	2365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	0.0	0.0	12.5	0.0	10.6	22.5	11.9	11.9	21.8	10.6	10.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.1	4.5	0.3	0.6	5.0	0.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.7	0.0	0.0	0.5	0.0	0.5	0.4	1.7	1.9	0.9	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.9	0.0	0.0	12.5	0.0	10.6	26.9	12.2	12.5	26.8	10.8	10.9
LnGrp LOS	B	A	A	B	A	B	C	B	B	C	B	B
Approach Vol, veh/h		225			157			794			703	
Approach Delay, s/veh		13.9			11.5			12.9			12.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	21.3		18.4	5.7	22.6		18.4				
Change Period (Y+Rc), s	4.4	* 5.4		4.9	4.4	5.4		4.9				
Max Green Setting (Gmax), s	30.0	* 60		40.0	30.0	60.0		40.0				
Max Q Clear Time (g_c+14), s	14.0	7.3		7.6	2.8	6.0		4.0				
Green Ext Time (p_c), s	0.1	8.2		1.0	0.0	5.5		0.4				

Intersection Summary

HCM 6th Ctrl Delay 12.8

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	20	188	242	59	200	200	586	23	35	1261	71
Future Volume (veh/h)	154	20	188	242	59	200	200	586	23	35	1261	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.83	1.00		0.86	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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	162	21	198	255	62	211	211	617	24	37	1327	75
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	306	215	277	403	293	239	1771	771	48	1361	77
Arrive On Green	0.10	0.16	0.16	0.16	0.22	0.22	0.13	0.50	0.50	0.03	0.40	0.40
Sat Flow, veh/h	1781	1870	1312	1781	1870	1361	1781	3554	1548	1781	3419	193
Grp Volume(v), veh/h	162	21	198	255	62	211	211	617	24	37	688	714
Grp Sat Flow(s),veh/h/ln	1781	1870	1312	1781	1870	1361	1781	1777	1548	1781	1777	1835
Q Serve(g_s), s	13.5	1.4	22.4	21.3	4.1	21.7	17.5	15.9	1.2	3.1	57.4	57.8
Cycle Q Clear(g_c), s	13.5	1.4	22.4	21.3	4.1	21.7	17.5	15.9	1.2	3.1	57.4	57.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	185	306	215	277	403	293	239	1771	771	48	707	730
V/C Ratio(X)	0.87	0.07	0.92	0.92	0.15	0.72	0.88	0.35	0.03	0.77	0.97	0.98
Avail Cap(c_a), veh/h	355	372	261	355	403	293	355	1771	771	355	707	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	66.5	53.3	62.1	62.7	48.0	54.9	64.1	22.9	19.3	72.9	44.6	44.7
Incr Delay (d2), s/veh	5.0	0.0	29.8	22.1	0.1	7.2	18.6	0.1	0.0	9.4	27.6	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.7	9.3	11.4	1.9	8.1	9.2	6.8	0.4	1.6	30.5	31.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	53.4	91.9	84.8	48.1	62.1	82.7	23.1	19.3	82.3	72.2	72.6
LnGrp LOS	E	D	F	F	D	E	F	C	B	F	E	E
Approach Vol, veh/h	381			528			852			1439		
Approach Delay, s/veh	81.1			71.5			37.7			72.7		
Approach LOS	F			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	83.8	27.9	29.6	24.6	68.7	20.1	37.4				
Change Period (Y+Rc), s	5.4	8.7	4.4	4.9	4.4	* 8.7	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	30.0	30.0	* 60	30.0	30.0				
Max Q Clear Time (g_c+15), s	15.1	17.9	23.3	24.4	19.5	59.8	15.5	23.7				
Green Ext Time (p_c), s	0.0	6.3	0.2	0.3	0.7	0.2	0.2	0.4				

Intersection Summary

HCM 6th Ctrl Delay 64.2

HCM 6th LOS E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	364	33	212	82	0	0	0	0	533	89	38
Future Volume (veh/h)	0	364	33	212	82	0	0	0	0	533	89	38
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	391	35	228	88	0				642	0	41
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	0				2	2	2
Cap, veh/h	333	665	293	382	731	0				886	0	690
Arrive On Green	0.00	0.19	0.19	0.21	0.21	0.00				0.25	0.00	0.25
Sat Flow, veh/h	1781	3554	1568	1781	3572	0				3563	0	1583
Grp Volume(v), veh/h	0	391	35	228	88	0				642	0	41
Grp Sat Flow(s), veh/h/ln	1781	1777	1568	1781	1702	0				1781	0	1583
Q Serve(g_s), s	0.0	4.2	0.8	4.8	0.9	0.0				6.8	0.0	0.6
Cycle Q Clear(g_c), s	0.0	4.2	0.8	4.8	0.9	0.0				6.8	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	333	665	293	382	731	0				886	0	690
V/C Ratio(X)	0.00	0.59	0.12	0.60	0.12	0.00				0.72	0.00	0.06
Avail Cap(c_a), veh/h	2577	5141	2269	2577	4925	0				3006	0	1632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.4	14.0	14.7	13.1	0.0				14.3	0.0	6.8
Incr Delay (d2), s/veh	0.0	0.3	0.1	1.7	0.1	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 BackOfQ(50%), veh/ln	0.0	1.3	0.2	1.6	0.3	0.0				2.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	15.7	14.1	16.3	13.2	0.0				14.7	0.0	6.8
LnGrp LOS	A	B	B	B	B	A				B	A	A
Approach Vol, veh/h	426			316			683					
Approach Delay, s/veh	15.6			15.5			14.2					
Approach LOS	B			B			B					
Timer - Assigned Phs	4			6			8					
Phs Duration (G+Y+Rc), s	11.8			16.5			13.2					
Change Period (Y+Rc), s	4.0			6.2			4.3					
Max Green Setting (Gmax), s	60.0			35.0			60.0					
Max Q Clear Time (g_c+I1), s	6.2			8.8			6.8					
Green Ext Time (p_c), s	1.6			1.4			2.1					

Intersection Summary

HCM 6th Ctrl Delay 14.9

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

SDCRAA ADP EIR
5: Frontage Rd & Washington St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	860	0	0	267	267	24	15	79	37	0	248
Future Volume (veh/h)	91	860	0	0	267	267	24	15	79	37	0	248
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.98
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
Work Zone On Approach	No				No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	945	0	0	293	293	26	16	87	41	0	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	2	2
Cap, veh/h	135	1487	0	0	482	430	185	26	141	50	0	332
Arrive On Green	0.08	0.42	0.00	0.00	0.27	0.27	0.10	0.10	0.10	0.24	0.00	0.24
Sat Flow, veh/h	1781	3647	0	0	1870	1585	1781	249	1354	206	0	1375
Grp Volume(v), veh/h	100	945	0	0	293	293	26	0	103	314	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1603	1581	0	0
Q Serve(g_s), s	3.4	13.2	0.0	0.0	9.0	10.4	0.8	0.0	3.9	11.8	0.0	0.0
Cycle Q Clear(g_c), s	3.4	13.2	0.0	0.0	9.0	10.4	0.8	0.0	3.9	11.8	0.0	0.0
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.84	0.13		0.87
Lane Grp Cap(c), veh/h	135	1487	0	0	482	430	185	0	167	382	0	0
V/C Ratio(X)	0.74	0.64	0.00	0.00	0.61	0.68	0.14	0.00	0.62	0.82	0.00	0.00
Avail Cap(c_a), veh/h	852	3400	0	0	1700	1516	1136	0	1022	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(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.4	14.5	0.0	0.0	20.0	20.4	25.6	0.0	26.9	22.5	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.2	0.0	0.0	1.5	2.3	0.1	0.0	1.4	1.7	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 BackOfQ(50%),veh/ln	1.7	4.2	0.0	0.0	3.4	3.6	0.3	0.0	1.5	4.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	14.6	0.0	0.0	21.5	22.7	25.7	0.0	28.3	24.2	0.0	0.0
LnGrp LOS	D	B	A	A	C	C	C	A	C	C	A	A
Approach Vol, veh/h	1045				586		129				314	
Approach Delay, s/veh	16.8				22.1		27.8				24.2	
Approach LOS	B				C		C				C	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+Rc), s	30.6		19.2		9.2		21.4		12.9			
Change Period (Y+Rc), s	* 4.4		4.0		4.5		4.4		6.4			
Max Green Setting (Gmax), s	* 60		40.0		30.0		60.0		40.0			
Max Q Clear Time (g_c+I1), s	15.2		13.8		5.4		12.4		5.9			
Green Ext Time (p_c), s	4.4		1.4		0.3		4.6		0.4			

Intersection Summary

HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
6: Hancock St & Washington St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑↑	↑
Traffic Volume (veh/h)	0	791	193	257	382	0	0	0	0	889	413	174
Future Volume (veh/h)	0	791	193	257	382	0	0	0	0	889	413	174
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	833	203	271	402	0				936	435	183
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1488	650	356	2040	0				1102	579	487
Arrive On Green	0.00	0.42	0.42	0.14	0.76	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3647	1553	3456	3647	0				3563	1870	1576
Grp Volume(v), veh/h	0	833	203	271	402	0				936	435	183
Grp Sat Flow(s),veh/h/ln	0	1777	1553	1728	1777	0				1781	1870	1576
Q Serve(g_s), s	0.0	15.0	7.3	6.3	2.6	0.0				20.7	17.6	7.6
Cycle Q Clear(g_c), s	0.0	15.0	7.3	6.3	2.6	0.0				20.7	17.6	7.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1488	650	356	2040	0				1102	579	487
V/C Ratio(X)	0.00	0.56	0.31	0.76	0.20	0.00				0.85	0.75	0.38
Avail Cap(c_a), veh/h	0	1488	650	703	2040	0				1361	715	602
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.96	0.96	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	18.5	16.3	35.2	4.5	0.0				27.2	26.1	22.7
Incr Delay (d2), s/veh	0.0	1.3	1.0	1.2	0.2	0.0				3.7	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	2.5	2.5	0.8	0.0				9.0	7.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.8	17.4	36.5	4.8	0.0				30.9	28.7	22.8
LnGrp LOS	A	B	B	D	A	A				C	C	C
Approach Vol, veh/h		1036			673						1554	
Approach Delay, s/veh		19.3			17.5						29.3	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	3.1	40.1		30.9		53.1						
Change Period (Y+Rc), s	4.4	4.9		4.9		4.9						
Max Green Setting (Gmax), s	7.5	20.6		32.1		42.1						
Max Q Clear Time (g_c+I), s	13.3	17.0		22.7		4.6						
Green Ext Time (p_c), s	0.3	2.2		3.3		2.9						

Intersection Summary

HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
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	↰↱	↑↑			↑↑	↰		↰↱↲				
Traffic Volume (veh/h)	299	1368	0	0	512	471	119	247	40	0	0	0
Future Volume (veh/h)	299	1368	0	0	512	471	119	247	40	0	0	0
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		0.97			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1900	1870	1900			
Adj Flow Rate, veh/h	315	1440	0	0	539	496	125	260	42			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0			
Cap, veh/h	1203	2633	0	0	1189	530	206	468	75			
Arrive On Green	0.70	1.00	0.00	0.00	0.33	0.33	0.14	0.14	0.14			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	1444	3284	527			
Grp Volume(v), veh/h	315	1440	0	0	539	496	156	131	140			
Grp Sat Flow(s), veh/h/ln	1728	1777	0	0	1777	1585	1798	1702	1755			
Q Serve(g_s), s	2.8	0.0	0.0	0.0	10.0	25.5	6.8	6.0	6.2			
Cycle Q Clear(g_c), s	2.8	0.0	0.0	0.0	10.0	25.5	6.8	6.0	6.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.80		0.30			
Lane Grp Cap(c), veh/h	1203	2633	0	0	1189	530	256	243	250			
V/C Ratio(X)	0.26	0.55	0.00	0.00	0.45	0.94	0.61	0.54	0.56			
Avail Cap(c_a), veh/h	1203	2633	0	0	1189	530	602	569	587			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.60	0.60	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	8.8	0.0	0.0	0.0	21.9	27.1	33.8	33.5	33.6			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	1.2	26.0	0.9	0.7	0.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	0.9	0.2	0.0	0.0	4.0	12.4	3.0	2.5	2.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.8	0.5	0.0	0.0	23.2	53.0	34.7	34.2	34.3			
LnGrp LOS	A	A	A	A	C	D	C	C	C			
Approach Vol, veh/h	1755			1035			427					
Approach Delay, s/veh	2.0			37.5			34.4					
Approach LOS	A			D			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	67.1			34.1			33.0			16.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	46.1			13.1			* 28			28.1		
Max Q Clear Time (g_c+I1), s	2.0			4.8			27.5			8.8		
Green Ext Time (p_c), s	17.3			0.7			0.4			1.6		

Intersection Summary

HCM 6th Ctrl Delay 17.7

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
8: India St & Vine St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	24	44	21	1281	25	0	0	0
Future Volume (veh/h)	0	0	0	0	24	44	21	1281	25	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.99			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h				0	25	46	22	1348	26			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	2			
Cap, veh/h				0	32	59	110	3355	64			
Arrive On Green				0.00	0.05	0.05	0.67	0.67	0.67			
Sat Flow, veh/h				0	590	1085	28	4971	95			
Grp Volume(v), veh/h				0	0	71	511	424	461			
Grp Sat Flow(s),veh/h/ln				0	0	1675	1861	1549	1683			
Q Serve(g_s), s				0.0	0.0	1.7	0.0	5.0	5.0			
Cycle Q Clear(g_c), s				0.0	0.0	1.7	5.0	5.0	5.0			
Prop In Lane				0.00		0.65	0.04		0.06			
Lane Grp Cap(c), veh/h				0	0	91	1348	1045	1136			
V/C Ratio(X)				0.00	0.00	0.78	0.38	0.41	0.41			
Avail Cap(c_a), veh/h				0	0	1635	2805	2268	2465			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh				0.0	0.0	19.1	3.0	3.0	3.0			
Incr Delay (d2), s/veh				0.0	0.0	5.5	0.3	0.4	0.3			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	0.7	0.7	0.6	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	0.0	24.6	3.2	3.4	3.3			
LnGrp LOS				A	A	C	A	A	A			
Approach Vol, veh/h					71			1396				
Approach Delay, s/veh					24.6			3.3				
Approach LOS					C			A				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		33.3						7.7				
Change Period (Y+Rc), s		5.6						5.5				
Max Green Setting (Gmax), s		60.0						40.0				
Max Q Clear Time (g_c+I1), s		7.0						3.7				
Green Ext Time (p_c), s		20.6						0.3				
Intersection Summary												
HCM 6th Ctrl Delay				4.3								
HCM 6th LOS				A								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	234	116	275	349	84	194	380	71	157	1012	66
Future Volume (veh/h)	83	234	116	275	349	84	194	380	71	157	1012	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	249	123	293	371	89	206	404	76	167	1077	70
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	309	261	324	414	99	237	1607	294	198	1707	111
Arrive On Green	0.06	0.17	0.17	0.18	0.28	0.28	0.13	0.37	0.37	0.11	0.35	0.35
Sat Flow, veh/h	1781	1870	1579	1781	1457	350	1781	4334	793	1781	4897	318
Grp Volume(v), veh/h	88	249	123	293	0	460	206	315	165	167	748	399
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	0	1807	1781	1702	1723	1781	1702	1811
Q Serve(g_s), s	5.4	14.3	7.8	17.9	0.0	27.2	12.6	7.1	7.4	10.2	20.4	20.5
Cycle Q Clear(g_c), s	5.4	14.3	7.8	17.9	0.0	27.2	12.6	7.1	7.4	10.2	20.4	20.5
Prop In Lane	1.00		1.00	1.00		0.19	1.00		0.46	1.00		0.18
Lane Grp Cap(c), veh/h	112	309	261	324	0	514	237	1262	639	198	1186	631
V/C Ratio(X)	0.78	0.80	0.47	0.90	0.00	0.90	0.87	0.25	0.26	0.84	0.63	0.63
Avail Cap(c_a), veh/h	480	673	568	480	0	650	480	1836	929	480	1836	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	51.4	44.7	42.0	44.5	0.0	38.2	47.3	24.3	24.4	48.5	30.3	30.3
Incr Delay (d2), s/veh	4.4	1.9	0.5	11.6	0.0	12.8	3.8	0.2	0.4	3.8	1.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	6.8	3.1	9.0	0.0	13.8	5.8	2.9	3.1	4.7	8.3	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.8	46.6	42.5	56.1	0.0	51.0	51.0	24.5	24.8	52.3	31.3	32.1
LnGrp LOS	E	D	D	E	A	D	D	C	C	D	C	C
Approach Vol, veh/h	460		753			686			1314			
Approach Delay, s/veh	47.3		53.0			32.5			34.2			
Approach LOS	D		D			C			C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	46.8	46.5	24.7	23.3	19.2	44.1	11.4	36.5				
Change Period (Y+Rc), s	4.4	5.3	4.4	4.9	4.4	5.3	4.4	4.9				
Max Green Setting (Gmax), s	30.0	60.0	30.0	40.0	30.0	60.0	30.0	40.0				
Max Q Clear Time (g_c+11.2), s	11.2	9.4	19.9	16.3	14.6	22.5	7.4	29.2				
Green Ext Time (p_c), s	0.2	6.1	0.3	1.2	0.2	16.3	0.1	2.3				

Intersection Summary

HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

SDCRAA ADP EIR
10: Kettner Blvd & Sassafrass St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑↑					↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	253	297	82	189	0	0	0	0	223	2094	355
Future Volume (veh/h)	0	253	297	82	189	0	0	0	0	223	2094	355
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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	272	319	88	203	0				240	2252	382
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	487	411	157	474	0				1082	2685	440
Arrive On Green	0.00	0.26	0.26	0.26	0.26	0.00				0.61	0.61	0.61
Sat Flow, veh/h	0	1870	1581	362	1905	0				1781	4420	724
Grp Volume(v), veh/h	0	272	319	123	168	0				240	1716	918
Grp Sat Flow(s),veh/h/ln	0	1870	1581	565	1617	0				1781	1702	1740
Q Serve(g_s), s	0.0	12.4	18.4	10.5	8.4	0.0				6.0	39.2	43.1
Cycle Q Clear(g_c), s	0.0	12.4	18.4	22.8	8.4	0.0				6.0	39.2	43.1
Prop In Lane	0.00		1.00	0.71		0.00				1.00		0.42
Lane Grp Cap(c), veh/h	0	487	411	210	421	0				1082	2068	1057
V/C Ratio(X)	0.00	0.56	0.78	0.59	0.40	0.00				0.22	0.83	0.87
Avail Cap(c_a), veh/h	0	571	483	254	493	0				1087	2078	1062
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	31.5	33.7	39.2	30.0	0.0				8.7	15.3	16.0
Incr Delay (d2), s/veh	0.0	0.4	5.4	1.9	0.5	0.0				0.2	3.2	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
%ile BackOfQ(50%),veh/ln	0.0	5.6	7.6	3.0	3.3	0.0				2.2	14.5	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.9	39.1	41.2	30.5	0.0				8.9	18.5	24.3
LnGrp LOS	A	C	D	D	C	A				A	B	C
Approach Vol, veh/h		591			291						2874	
Approach Delay, s/veh		35.8			35.0						19.5	
Approach LOS		D			D						B	
Timer - Assigned Phs				4		6		8				
Phs Duration (G+Y+Rc), s				32.3		66.0		32.3				
Change Period (Y+Rc), s				6.7		6.3		6.7				
Max Green Setting (Gmax), s				30.0		60.0		30.0				
Max Q Clear Time (g_c+I1), s				20.4		45.1		24.8				
Green Ext Time (p_c), s				1.3		14.6		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑	↑				
Traffic Volume (veh/h)	193	47	248	0	22	13	251	1336	47	0	0	0
Future Volume (veh/h)	193	47	248	0	22	13	251	1336	47	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	1870	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	203	49	261	0	23	14	264	1406	49			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2			
Cap, veh/h	417	71	1235	0	285	174	925	1818	63			
Arrive On Green	0.26	0.26	0.26	0.00	0.26	0.26	0.52	0.52	0.52			
Sat Flow, veh/h	1094	272	1570	0	1089	663	1781	3502	122			
Grp Volume(v), veh/h	252	0	261	0	0	37	264	712	743			
Grp Sat Flow(s), veh/h/ln	1366	0	1570	0	0	1751	1781	1777	1847			
Q Serve(g_s), s	7.8	0.0	0.0	0.0	0.0	0.8	4.2	16.0	16.1			
Cycle Q Clear(g_c), s	8.6	0.0	0.0	0.0	0.0	0.8	4.2	16.0	16.1			
Prop In Lane	0.81		1.00	0.00		0.38	1.00		0.07			
Lane Grp Cap(c), veh/h	488	0	1235	0	0	459	925	923	959			
V/C Ratio(X)	0.52	0.00	0.21	0.00	0.00	0.08	0.29	0.77	0.77			
Avail Cap(c_a), veh/h	979	0	1767	0	0	1053	1054	1051	1092			
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	0.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	17.1	0.0	1.4	0.0	0.0	13.9	6.8	9.6	9.6			
Incr Delay (d2), s/veh	0.8	0.0	0.1	0.0	0.0	0.0	0.2	3.2	3.1			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	2.5	0.0	3.6	0.0	0.0	0.3	1.2	5.3	5.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.9	0.0	1.5	0.0	0.0	13.9	6.9	12.8	12.8			
LnGrp LOS	B	A	A	A	A	B	A	B	B			
Approach Vol, veh/h		513			37			1719				
Approach Delay, s/veh		9.6			13.9			11.9				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		30.4		19.5				19.5				
Change Period (Y+Rc), s		4.5		* 6.4				6.4				
Max Green Setting (Gmax), s		29.5		* 30				30.0				
Max Q Clear Time (g_c+l1), s		18.1		10.6				2.8				
Green Ext Time (p_c), s		7.8		2.4				0.1				

Intersection Summary

HCM 6th Ctrl Delay 11.4

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

SDCRAA ADP EIR
12: Pacific Hwy & Palm St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	6	28	126	3	10	4	575	198	212	1313	9
Future Volume (veh/h)	5	6	28	126	3	10	4	575	198	212	1313	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	7	33	147	3	12	5	669	230	247	1527	10
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	446	68	320	423	78	311	10	2023	624	374	2612	17
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.01	0.40	0.40	0.11	0.50	0.50
Sat Flow, veh/h	1385	283	1332	1355	324	1297	1781	5106	1574	3456	5234	34
Grp Volume(v), veh/h	6	0	40	147	0	15	5	669	230	247	993	544
Grp Sat Flow(s),veh/h/ln	1385	0	1615	1355	0	1621	1781	1702	1574	1728	1702	1864
Q Serve(g_s), s	0.2	0.0	1.1	5.5	0.0	0.4	0.2	5.3	6.0	4.0	12.0	12.0
Cycle Q Clear(g_c), s	0.6	0.0	1.1	6.7	0.0	0.4	0.2	5.3	6.0	4.0	12.0	12.0
Prop In Lane	1.00		0.82	1.00		0.80	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	446	0	388	423	0	389	10	2023	624	374	1699	930
V/C Ratio(X)	0.01	0.00	0.10	0.35	0.00	0.04	0.53	0.33	0.37	0.66	0.58	0.58
Avail Cap(c_a), veh/h	1064	0	1108	1027	0	1113	917	5256	1620	1779	3504	1919
HCM Platoon Ratio	1.00	1.00	1.00	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	17.2	0.0	17.3	19.9	0.0	17.0	28.9	12.2	12.4	25.0	10.3	10.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.0	15.7	0.2	0.7	0.7	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	1.7	0.0	0.1	0.1	1.7	1.9	1.5	3.6	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	17.3	20.0	0.0	17.0	44.6	12.4	13.1	25.7	10.6	10.9
LnGrp LOS	B	A	B	C	A	B	D	B	B	C	B	B
Approach Vol, veh/h	46				162				904		1784	
Approach Delay, s/veh	17.3				19.8				12.8		12.8	
Approach LOS	B				B				B		B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	0.7	28.8	18.8		4.7	34.8	18.8					
Change Period (Y+Rc), s	4.4	* 5.7	* 4.8		4.4	5.7	* 4.8					
Max Green Setting (Gmax), s	30.0	* 60	* 40		30.0	60.0	* 40					
Max Q Clear Time (g_c+I), s	10.0	8.0	3.1		2.2	14.0	8.7					
Green Ext Time (p_c), s	0.4	11.8	0.1		0.0	15.1	0.3					

Intersection Summary

HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

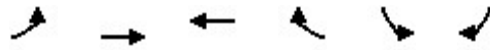
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑↱			↑↑↑			↱			↱		
Traffic Vol, veh/h	0	3299	12	0	1557	0	0	0	1	0	0	0
Future Vol, veh/h	0	3299	12	0	1557	0	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	5	2	2	5	2	2	2	2	2	2	2
Mvmt Flow	0	3366	12	0	1589	0	0	0	1	0	0	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	1690	-	-	795
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	0	0	0	70	0	0	284
Stage 1	0	-	-	0	-	0	0	0	-	0	0	-
Stage 2	0	-	-	0	-	0	0	0	-	0	0	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	70	-	-	284
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			57.2			0		
HCM LOS							F			A		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	SBLn1							
Capacity (veh/h)	70	-	-	-	-							
HCM Lane V/C Ratio	0.015	-	-	-	-							
HCM Control Delay (s)	57.2	-	-	-	0							
HCM Lane LOS	F	-	-	-	A							
HCM 95th %tile Q(veh)	0	-	-	-	-							

SDCRAA ADP EIR
14: N Harbor Dr & W Laurel St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔↔	↑↑↑	↑↑↑	↔	↔	↔
Traffic Volume (veh/h)	1242	2103	1673	136	86	17
Future Volume (veh/h)	1242	2103	1673	136	86	17
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	1294	2191	1743	0	90	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	1130	4214	2397		117	104
Arrive On Green	0.33	0.85	0.48	0.00	0.07	0.07
Sat Flow, veh/h	3456	5149	5149	1585	1781	1585
Grp Volume(v), veh/h	1294	2191	1743	0	90	18
Grp Sat Flow(s),veh/h/ln	1728	1662	1662	1585	1781	1585
Q Serve(g_s), s	38.6	14.3	32.9	0.0	5.9	1.3
Cycle Q Clear(g_c), s	38.6	14.3	32.9	0.0	5.9	1.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1130	4214	2397		117	104
V/C Ratio(X)	1.14	0.52	0.73		0.77	0.17
Avail Cap(c_a), veh/h	1130	4214	2397		453	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.75	0.00	1.00	1.00
Uniform Delay (d), s/veh	39.7	2.5	24.4	0.0	54.2	52.1
Incr Delay (d2), s/veh	75.9	0.5	1.5	0.0	4.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.4	2.2	12.3	0.0	2.7	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	115.6	3.0	25.9	0.0	58.2	52.4
LnGrp LOS	F	A	C		E	D
Approach Vol, veh/h		3485	1743	A	108	
Approach Delay, s/veh		44.8	25.9		57.2	
Approach LOS		D	C		E	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		105.0		13.0	43.0	62.0
Change Period (Y+Rc), s		5.3		5.2	4.4	* 5.3
Max Green Setting (Gmax), s		77.5		30.0	38.6	* 35
Max Q Clear Time (g_c+I1), s		16.3		7.9	40.6	34.9
Green Ext Time (p_c), s		57.1		0.1	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	38.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
15: Pacific Hwy & W Laurel St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	1333	96	102	734	112	97	301	144	203	763	568
Future Volume (veh/h)	286	1333	96	102	734	112	97	301	144	203	763	568
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	333	1550	112	119	853	130	113	350	167	236	887	660
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	1574	113	196	1187	181	136	477	213	244	1018	629
Arrive On Green	0.20	0.47	0.47	0.04	0.13	0.13	0.08	0.14	0.14	0.14	0.20	0.20
Sat Flow, veh/h	1781	3359	241	1781	3091	471	1781	3443	1535	1781	5106	1565
Grp Volume(v), veh/h	333	815	847	119	490	493	113	346	171	236	887	660
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1781	1777	1785	1781	1702	1574	1781	1702	1565
Q Serve(g_s), s	25.8	63.0	64.6	9.2	37.1	37.1	8.8	13.6	14.7	18.4	23.6	27.9
Cycle Q Clear(g_c), s	25.8	63.0	64.6	9.2	37.1	37.1	8.8	13.6	14.7	18.4	23.6	27.9
Prop In Lane	1.00		0.13	1.00		0.26	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	356	833	854	196	683	686	136	472	218	244	1018	629
V/C Ratio(X)	0.93	0.98	0.99	0.61	0.72	0.72	0.83	0.73	0.78	0.97	0.87	1.05
Avail Cap(c_a), veh/h	382	833	854	196	683	686	244	625	289	244	1018	629
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	0.97	0.97	0.97	0.84	0.84	0.84
Uniform Delay (d), s/veh	55.1	36.5	36.9	64.5	53.8	53.8	63.8	57.8	58.3	60.1	54.3	42.1
Incr Delay (d2), s/veh	29.1	26.5	28.8	12.1	5.9	5.8	4.7	3.2	10.1	43.2	7.4	46.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	32.2	34.2	5.0	18.9	18.9	4.1	6.1	6.4	11.2	10.7	29.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.2	63.0	65.8	76.6	59.7	59.7	68.5	61.0	68.4	103.2	61.7	88.7
LnGrp LOS	F	E	E	E	E	E	E	E	E	F	E	F
Approach Vol, veh/h	1995			1102			630			1783		
Approach Delay, s/veh	67.7			61.5			64.3			77.2		
Approach LOS	E			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	23.6	24.4	21.2	70.8	15.1	32.9	32.4	59.6				
Change Period (Y+Rc), s	4.4	* 5	5.8	* 5.2	4.4	5.0	4.4	5.8				
Max Green Setting (Gmax), s	19.2	* 26	9.8	* 66	19.2	25.6	30.0	45.6				
Max Q Clear Time (g_c+20), s	20.4	16.7	11.2	66.6	10.8	29.9	27.8	39.1				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.0	0.1	0.0	0.2	2.9				

Intersection Summary

HCM 6th Ctrl Delay	69.1
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
16: Kettner Blvd & W Laurel St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑						↔↑↑	↔
Traffic Volume (veh/h)	0	1448	153	37	191	0	0	0	0	294	655	785
Future Volume (veh/h)	0	1448	153	37	191	0	0	0	0	294	655	785
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	1540	163	39	203	0				313	697	835
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1626	170	64	2021	0				555	1357	543
Arrive On Green	0.00	0.17	0.17	0.04	0.57	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3338	340	1781	3647	0				1606	3924	1570
Grp Volume(v), veh/h	0	836	867	39	203	0				349	661	835
Grp Sat Flow(s),veh/h/ln	0	1777	1808	1781	1777	0				1790	1870	1570
Q Serve(g_s), s	0.0	65.1	66.6	3.0	3.7	0.0				22.2	19.7	48.4
Cycle Q Clear(g_c), s	0.0	65.1	66.6	3.0	3.7	0.0				22.2	19.7	48.4
Prop In Lane	0.00		0.19	1.00		0.00				0.90		1.00
Lane Grp Cap(c), veh/h	0	890	906	64	2021	0				619	1293	543
V/C Ratio(X)	0.00	0.94	0.96	0.61	0.10	0.00				0.56	0.51	1.54
Avail Cap(c_a), veh/h	0	890	906	313	2021	0				619	1293	543
HCM Platoon Ratio	1.00	0.33	0.33	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.12	0.12	0.75	0.75	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	56.3	56.9	66.5	13.8	0.0				37.2	36.4	45.8
Incr Delay (d2), s/veh	0.0	3.3	4.3	2.6	0.1	0.0				3.7	1.4	251.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	31.9	33.4	1.4	1.5	0.0				10.5	9.4	56.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	59.6	61.3	69.1	13.9	0.0				40.9	37.8	297.2
LnGrp LOS	A	E	E	E	B	A				D	D	F
Approach Vol, veh/h		1703			242						1845	
Approach Delay, s/veh		60.5			22.8						155.8	
Approach LOS		E			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	76.8		53.8		86.2						
Change Period (Y+Rc), s	4.4	* 6.6		5.4		6.6						
Max Green Setting (Gmax), s	21.6	* 51		48.4		79.6						
Max Q Clear Time (g_c+I), s	15.0	68.6		50.4		5.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.4						

Intersection Summary

HCM 6th Ctrl Delay	104.5
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↱	↑			↑↰			↑↑	↱			
Traffic Volume (veh/h)	802	908	0	0	195	158	42	244	122	0	0	0
Future Volume (veh/h)	802	908	0	0	195	158	42	244	122	0	0	0
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		0.92			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	862	976	0	0	210	170	45	262	131			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	1590	1383	0	0	417	321	70	430	201			
Arrive On Green	0.46	0.74	0.00	0.00	0.22	0.22	0.14	0.14	0.14			
Sat Flow, veh/h	3456	1870	0	0	2005	1471	506	3115	1455			
Grp Volume(v), veh/h	862	976	0	0	194	186	164	143	131			
Grp Sat Flow(s), veh/h/ln	1728	1870	0	0	1777	1606	1845	1777	1455			
Q Serve(g_s), s	14.4	22.7	0.0	0.0	7.7	8.2	6.7	6.0	6.8			
Cycle Q Clear(g_c), s	14.4	22.7	0.0	0.0	7.7	8.2	6.7	6.0	6.8			
Prop In Lane	1.00		0.00	0.00		0.92	0.27		1.00			
Lane Grp Cap(c), veh/h	1590	1383	0	0	388	350	255	245	201			
V/C Ratio(X)	0.54	0.71	0.00	0.00	0.50	0.53	0.64	0.58	0.65			
Avail Cap(c_a), veh/h	1590	1383	0	0	580	524	394	380	311			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.18	0.18	0.00	0.00	1.00	1.00	0.93	0.93	0.93			
Uniform Delay (d), s/veh	15.5	5.7	0.0	0.0	27.5	27.6	32.6	32.3	32.7			
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.0	0.4	0.5	0.9	0.8	1.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%), veh/ln	5.0	5.2	0.0	0.0	3.1	3.0	3.0	2.6	2.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.6	6.2	0.0	0.0	27.8	28.1	33.6	33.1	33.9			
LnGrp LOS	B	A	A	A	C	C	C	C	C			
Approach Vol, veh/h	1838			380			438					
Approach Delay, s/veh	10.6			28.0			33.5					
Approach LOS	B			C			C					
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	64.1			41.7			22.3			15.9		
Change Period (Y+Rc), s	4.9			4.9			* 4.9			4.9		
Max Green Setting (Gmax), s	53.1			22.1			* 26			17.1		
Max Q Clear Time (g_c+I1), s	24.7			16.4			10.2			8.8		
Green Ext Time (p_c), s	5.1			1.8			1.2			1.0		

Intersection Summary

HCM 6th Ctrl Delay 16.9

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
18: N Harbor Dr & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	185	1136	643	0	0	2288
Future Volume (veh/h)	185	1136	643	0	0	2288
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
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1826	0	1870	1826
Adj Flow Rate, veh/h	193	0	670	0	0	2383
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	5	0	2	5
Cap, veh/h	225		2044	0	596	4929
Arrive On Green	0.13	0.00	0.41	0.00	0.00	0.78
Sat Flow, veh/h	1781	2790	5313	0	1781	6537
Grp Volume(v), veh/h	193	0	670	0	0	2383
Grp Sat Flow(s),veh/h/ln	1781	1395	1662	0	1781	1570
Q Serve(g_s), s	11.7	0.0	10.1	0.0	0.0	14.5
Cycle Q Clear(g_c), s	11.7	0.0	10.1	0.0	0.0	14.5
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	225		2044	0	596	4929
V/C Ratio(X)	0.86		0.33	0.00	0.00	0.48
Avail Cap(c_a), veh/h	487		2044	0	730	4929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.00	0.82	0.00	0.00	0.81
Uniform Delay (d), s/veh	47.1	0.0	22.1	0.0	0.0	4.1
Incr Delay (d2), s/veh	3.0	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
%ile BackOfQ(50%),veh/ln	5.3	0.0	3.7	0.0	0.0	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.1	0.0	22.2	0.0	0.0	4.4
LnGrp LOS	D		C	A	A	A
Approach Vol, veh/h	193	A	670			2383
Approach Delay, s/veh	50.1		22.2			4.4
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	41.2	50.0			91.2	18.8
Change Period (Y+Rc), s	4.4	4.9			4.9	4.9
Max Green Setting (Gmax), s	45.1	20.6			45.1	30.1
Max Q Clear Time (g_c+I10), s	10.0	12.1			16.5	13.7
Green Ext Time (p_c), s	0.0	3.5			24.1	0.2

Intersection Summary

HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
19: Pacific Hwy & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↑↑↑	↑↑↑		↑↑↑	↑↑↑		↑↑↑	↑↑↑	
Traffic Volume (veh/h)	0	0	0	176	1171	102	135	423	0	0	885	55
Future Volume (veh/h)	0	0	0	176	1171	102	135	423	0	0	885	55
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1900	1870	1900	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				185	1233	107	142	445	0	0	932	58
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				0	2	0	2	2	0	0	2	2
Cap, veh/h				349	2490	222	155	1629	0	0	851	53
Arrive On Green				0.19	0.19	0.19	0.17	0.64	0.00	0.00	0.17	0.17
Sat Flow, veh/h				609	4340	387	1781	5274	0	0	5070	304
Grp Volume(v), veh/h				559	470	496	142	445	0	0	647	343
Grp Sat Flow(s),veh/h/ln				1840	1702	1795	1781	1702	0	0	1702	1801
Q Serve(g_s), s				30.1	27.1	27.1	8.6	4.2	0.0	0.0	19.1	19.1
Cycle Q Clear(g_c), s				30.1	27.1	27.1	8.6	4.2	0.0	0.0	19.1	19.1
Prop In Lane				0.33		0.22	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				1055	976	1030	155	1629	0	0	591	313
V/C Ratio(X)				0.53	0.48	0.48	0.91	0.27	0.00	0.00	1.09	1.10
Avail Cap(c_a), veh/h				1055	976	1030	155	1629	0	0	591	313
HCM Platoon Ratio				0.33	0.33	0.33	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.86	0.86	0.86	0.64	0.64	0.00	0.00	0.46	0.46
Uniform Delay (d), s/veh				31.2	30.0	30.0	45.0	14.3	0.0	0.0	45.5	45.5
Incr Delay (d2), s/veh				1.6	1.5	1.4	34.7	0.1	0.0	0.0	54.8	64.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				15.3	12.7	13.4	4.9	1.5	0.0	0.0	12.4	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.8	31.5	31.4	79.7	14.4	0.0	0.0	100.3	109.9
LnGrp LOS				C	C	C	E	B	A	A	F	F
Approach Vol, veh/h					1525			587			990	
Approach Delay, s/veh					31.9			30.2			103.6	
Approach LOS					C			C			F	
Timer - Assigned Phs				3	4		6	8				
Phs Duration (G+Y+Rc), s				15.5	25.5		69.0	41.0				
Change Period (Y+Rc), s				5.9	* 6.4		5.9	5.9				
Max Green Setting (Gmax), s				9.6	* 19		63.1	35.1				
Max Q Clear Time (g_c+I1), s				10.6	21.1		32.1	6.2				
Green Ext Time (p_c), s				0.0	0.0		9.9	3.4				
Intersection Summary												
HCM 6th Ctrl Delay											54.5	
HCM 6th LOS											D	
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑↑	
Traffic Volume (veh/h)	0	0	0	259	1402	0	0	0	0	0	498	72
Future Volume (veh/h)	0	0	0	259	1402	0	0	0	0	0	498	72
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				270	1460	0				0	519	75
Peak Hour Factor				0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				546	3172	0				0	891	126
Arrive On Green				0.23	0.23	0.00				0.00	0.20	0.20
Sat Flow, veh/h				769	4635	0				0	4664	637
Grp Volume(v), veh/h				643	1087	0				0	390	204
Grp Sat Flow(s),veh/h/ln				1832	1702	0				0	1702	1729
Q Serve(g_s), s				33.4	30.1	0.0				0.0	11.4	11.8
Cycle Q Clear(g_c), s				33.4	30.1	0.0				0.0	11.4	11.8
Prop In Lane				0.42		0.00				0.00		0.37
Lane Grp Cap(c), veh/h				1301	2417	0				0	675	343
V/C Ratio(X)				0.49	0.45	0.00				0.00	0.58	0.59
Avail Cap(c_a), veh/h				1301	2417	0				0	675	343
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				25.0	23.7	0.0				0.0	39.9	40.1
Incr Delay (d2), s/veh				1.3	0.6	0.0				0.0	3.6	7.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				16.8	13.8	0.0				0.0	5.1	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.4	24.3	0.0				0.0	43.5	47.5
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					1730						594	
Approach Delay, s/veh					25.1						44.9	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				26.7		83.3						
Change Period (Y+Rc), s				4.9		5.2						
Max Green Setting (Gmax), s				21.8		78.1						
Max Q Clear Time (g_c+I1), s				13.8		35.4						
Green Ext Time (p_c), s				0.7		2.7						
Intersection Summary												
HCM 6th Ctrl Delay				30.1								
HCM 6th LOS				C								

SDCRAA ADP EIR
21: India St & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1579	100	91	191	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1579	100	91	191	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1628	103	94	197	0			
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3440	218	225	510	0			
Arrive On Green				0.00	0.23	0.23	0.07	0.07	0.00			
Sat Flow, veh/h				0	5077	310	1101	2585	0			
Grp Volume(v), veh/h				0	1129	602	155	136	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1815	1815	1777	0			
Q Serve(g_s), s				0.0	31.5	31.5	9.0	8.1	0.0			
Cycle Q Clear(g_c), s				0.0	31.5	31.5	9.0	8.1	0.0			
Prop In Lane				0.00		0.17	0.61		0.00			
Lane Grp Cap(c), veh/h				0	2386	1272	371	363	0			
V/C Ratio(X)				0.00	0.47	0.47	0.42	0.37	0.00			
Avail Cap(c_a), veh/h				0	2386	1272	371	363	0			
HCM Platoon Ratio				1.00	0.33	0.33	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	24.7	24.8	45.0	44.6	0.0			
Incr Delay (d2), s/veh				0.0	0.7	1.3	3.4	2.9	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	14.5	15.7	4.7	4.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	25.4	26.0	48.4	47.5	0.0			
LnGrp LOS				A	C	C	D	D	A			
Approach Vol, veh/h					1731			291				
Approach Delay, s/veh					25.6			48.0				
Approach LOS					C			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						82.6		27.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						77.1		22.5				
Max Q Clear Time (g_c+I1), s						33.5		11.0				
Green Ext Time (p_c), s						19.1		1.3				
Intersection Summary												
HCM 6th Ctrl Delay				28.8								
HCM 6th LOS				C								



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑						↑↑	↑
Traffic Volume (veh/h)	0	0	0	238	1668	0	0	0	0	0	520	53
Future Volume (veh/h)	0	0	0	238	1668	0	0	0	0	0	520	53
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach				No						No		
Adj Sat Flow, veh/h/ln				1870	1870	0				0	1870	1870
Adj Flow Rate, veh/h				253	1774	0				0	553	56
Peak Hour Factor				0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				431	3244	0				0	733	320
Arrive On Green				0.23	0.23	0.00				0.00	0.21	0.21
Sat Flow, veh/h				615	4797	0				0	3647	1553
Grp Volume(v), veh/h				756	1271	0				0	553	56
Grp Sat Flow(s),veh/h/ln				1840	1702	0				0	1777	1553
Q Serve(g_s), s				40.2	36.0	0.0				0.0	16.1	3.3
Cycle Q Clear(g_c), s				40.2	36.0	0.0				0.0	16.1	3.3
Prop In Lane				0.33		0.00				0.00		1.00
Lane Grp Cap(c), veh/h				1289	2386	0				0	733	320
V/C Ratio(X)				0.59	0.53	0.00				0.00	0.75	0.17
Avail Cap(c_a), veh/h				1289	2386	0				0	733	320
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				28.1	26.5	0.0				0.0	41.0	35.9
Incr Delay (d2), s/veh				2.0	0.9	0.0				0.0	7.1	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.4	16.6	0.0				0.0	7.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.1	27.3	0.0				0.0	48.1	37.1
LnGrp LOS				C	C	A				A	D	D
Approach Vol, veh/h					2027						609	
Approach Delay, s/veh					28.4						47.1	
Approach LOS					C						D	
Timer - Assigned Phs				4		6						
Phs Duration (G+Y+Rc), s				27.6		82.4						
Change Period (Y+Rc), s				4.9		5.3						
Max Green Setting (Gmax), s				22.7		77.1						
Max Q Clear Time (g_c+I1), s				18.1		42.2						
Green Ext Time (p_c), s				1.7		21.4						
Intersection Summary												
HCM 6th Ctrl Delay											32.7	
HCM 6th LOS											C	

SDCRAA ADP EIR
23: State St & Hawthorn St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑↑			↑↑				
Traffic Volume (veh/h)	0	0	0	0	1881	66	42	95	0	0	0	0
Future Volume (veh/h)	0	0	0	0	1881	66	42	95	0	0	0	0
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			
Work Zone On Approach				No			No					
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	1980	69	44	100	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	3689	128	184	453	0			
Arrive On Green				0.00	0.73	0.73	0.18	0.18	0.00			
Sat Flow, veh/h				0	5235	176	1040	2649	0			
Grp Volume(v), veh/h				0	1329	720	77	67	0			
Grp Sat Flow(s),veh/h/ln				0	1702	1839	1818	1777	0			
Q Serve(g_s), s				0.0	19.2	19.2	4.0	3.5	0.0			
Cycle Q Clear(g_c), s				0.0	19.2	19.2	4.0	3.5	0.0			
Prop In Lane				0.00		0.10	0.57		0.00			
Lane Grp Cap(c), veh/h				0	2479	1339	322	315	0			
V/C Ratio(X)				0.00	0.54	0.54	0.24	0.21	0.00			
Avail Cap(c_a), veh/h				0	2479	1339	322	315	0			
HCM Platoon Ratio				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	0.00			
Uniform Delay (d), s/veh				0.0	6.7	6.7	38.9	38.7	0.0			
Incr Delay (d2), s/veh				0.0	0.8	1.6	1.7	1.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.2	7.0	2.0	1.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	7.5	8.2	40.6	40.2	0.0			
LnGrp LOS				A	A	A	D	D	A			
Approach Vol, veh/h					2049			144				
Approach Delay, s/veh					7.8			40.4				
Approach LOS					A			D				
Timer - Assigned Phs						6		8				
Phs Duration (G+Y+Rc), s						85.6		24.4				
Change Period (Y+Rc), s						5.5		4.9				
Max Green Setting (Gmax), s						80.1		19.5				
Max Q Clear Time (g_c+I1), s						21.2		6.0				
Green Ext Time (p_c), s						28.5		0.6				
Intersection Summary												
HCM 6th Ctrl Delay				9.9								
HCM 6th LOS				A								

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑			↑				↗
Traffic Vol, veh/h	0	0	0	0	182	650	4	103	0	0	0	25
Future Vol, veh/h	0	0	0	0	182	650	4	103	0	0	0	25
Conflicting Peds, #/hr	0	0	7	7	0	0	0	0	4	4	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	190	677	4	107	0	0	0	26
Major/Minor				Major2		Minor1		Minor2				
Conflicting Flow All				-	-	0	95	867	-	-	-	434
Stage 1				-	-	-	0	0	-	-	-	-
Stage 2				-	-	-	95	867	-	-	-	-
Critical Hdwy				-	-	-	7.54	6.54	-	-	-	6.94
Critical Hdwy Stg 1				-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				-	-	-	6.54	5.54	-	-	-	-
Follow-up Hdwy				-	-	-	3.52	4.02	-	-	-	3.32
Pot Cap-1 Maneuver				0	-	-	878	289	0	0	0	570
Stage 1				0	-	-	-	-	0	0	0	-
Stage 2				0	-	-	901	368	0	0	0	-
Platoon blocked, %						-	-					
Mov Cap-1 Maneuver				-	-	-	838	289	-	-	-	570
Mov Cap-2 Maneuver				-	-	-	838	289	-	-	-	-
Stage 1				-	-	-	-	-	-	-	-	-
Stage 2				-	-	-	860	368	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s				0		24.6		11.6				
HCM LOS						C		B				
Minor Lane/Major Mvmt	NBLn1	WBT	WBR	SBLn1								
Capacity (veh/h)	289	-	-	570								
HCM Lane V/C Ratio	0.371	-	-	0.046								
HCM Control Delay (s)	24.6	-	-	11.6								
HCM Lane LOS	C	-	-	B								
HCM 95th %tile Q(veh)	1.7	-	-	0.1								

SDCRAA ADP EIR
25: N Harbor Dr & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑						↑↑↑	↑	↑↑↑	↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	633	141	1309	1196	0
Future Volume (veh/h)	0	0	0	0	0	0	0	633	141	1309	1196	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.84	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	0	1870	0				0	1826	1870	1870	1826	0
Adj Flow Rate, veh/h	0	0	0				0	646	144	1336	1220	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0				0	5	2	2	5	0
Cap, veh/h	0	0	0				0	965	257	3612	1740	0
Arrive On Green	0.00	0.00	0.00				0.00	0.19	0.19	0.48	0.64	0.00
Sat Flow, veh/h		0					0	5149	1327	5023	1826	0
Grp Volume(v), veh/h		0.0					0	646	144	1336	1220	0
Grp Sat Flow(s),veh/h/ln							0	1662	1327	1674	1826	0
Q Serve(g_s), s							0.0	13.2	10.8	18.4	48.1	0.0
Cycle Q Clear(g_c), s							0.0	13.2	10.8	18.4	48.1	0.0
Prop In Lane							0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h							0	965	257	3612	1740	0
V/C Ratio(X)							0.00	0.67	0.56	0.37	0.70	0.00
Avail Cap(c_a), veh/h							0	1205	321	3612	1740	0
HCM Platoon Ratio							1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)							0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh							0.0	41.1	40.1	12.8	9.6	0.0
Incr Delay (d2), s/veh							0.0	2.2	4.9	0.1	2.0	0.0
Initial Q Delay(d3),s/veh							0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln							0.0	5.4	3.8	7.3	15.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh							0.0	43.3	45.0	12.8	11.7	0.0
LnGrp LOS							A	D	D	B	B	A
Approach Vol, veh/h								790			2556	
Approach Delay, s/veh								43.6			12.3	
Approach LOS								D			B	
Timer - Assigned Phs	1	2					6					
Phs Duration (G+Y+Rc), s	83.5	26.5					110.0					
Change Period (Y+Rc), s	4.4	* 5.2					5.2					
Max Green Setting (Gmax), s	40.0	* 27					40.0					
Max Q Clear Time (g_c+l1), s	20.4	15.2					50.1					
Green Ext Time (p_c), s	5.4	6.1					0.0					
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

SDCRAA ADP EIR
26: Pacific Hwy & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗					↑↑↑		↘	↑↑↑	
Traffic Volume (veh/h)	59	1401	63	0	0	0	0	455	239	214	885	0
Future Volume (veh/h)	59	1401	63	0	0	0	0	455	239	214	885	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		0.93	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	60	1430	64				0	464	244	218	903	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	104	2640	820				0	708	307	244	1966	0
Arrive On Green	0.17	0.17	0.17				0.00	0.21	0.21	0.27	0.77	0.00
Sat Flow, veh/h	200	5065	1573				0	3572	1477	1781	5274	0
Grp Volume(v), veh/h	559	931	64				0	464	244	218	903	0
Grp Sat Flow(s),veh/h/ln	1860	1702	1573				0	1702	1477	1781	1702	0
Q Serve(g_s), s	30.4	27.4	3.8				0.0	13.7	17.2	12.9	6.9	0.0
Cycle Q Clear(g_c), s	30.4	27.4	3.8				0.0	13.7	17.2	12.9	6.9	0.0
Prop In Lane	0.11		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	970	1774	820				0	708	307	244	1966	0
V/C Ratio(X)	0.58	0.52	0.08				0.00	0.66	0.79	0.89	0.46	0.00
Avail Cap(c_a), veh/h	970	1774	820				0	916	397	325	2511	0
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.65	0.65	0.65				0.00	1.00	1.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	34.4	33.1	23.4				0.0	39.9	41.3	39.1	8.6	0.0
Incr Delay (d2), s/veh	1.6	0.7	0.1				0.0	1.2	8.6	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ft	5.6	12.6	1.4				0.0	5.8	6.9	4.9	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	33.9	23.5				0.0	41.2	49.9	41.2	8.6	0.0
LnGrp LOS	D	C	C				A	D	D	D	A	A
Approach Vol, veh/h	1554							708		1121		
Approach Delay, s/veh	34.2							44.2		14.9		
Approach LOS	C							D		B		
Timer - Assigned Phs	2		4		7		8					
Phs Duration (G+Y+Rc), s	62.2		47.8		19.5		28.3					
Change Period (Y+Rc), s	4.9		5.4		4.4		* 5.4					
Max Green Setting (Gmax), s	45.6		54.1		20.1		* 30					
Max Q Clear Time (g_c+I1), s	32.4		8.9		14.9		19.2					
Green Ext Time (p_c), s	10.1		5.7		0.1		3.6					

Intersection Summary

HCM 6th Ctrl Delay	29.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

SDCRAA ADP EIR
27: Kettner Blvd & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑									↑↑↑	
Traffic Volume (veh/h)	0	1865	46	0	0	0	0	0	0	276	499	0
Future Volume (veh/h)	0	1865	46	0	0	0	0	0	0	276	499	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	2049	51							303	548	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	2984	74							568	1135	0
Arrive On Green	0.00	0.19	0.19							0.11	0.11	0.00
Sat Flow, veh/h	0	5289	127							1729	3627	0
Grp Volume(v), veh/h	0	1361	739							313	538	0
Grp Sat Flow(s),veh/h/ln	0	1702	1844							1784	1702	0
Q Serve(g_s), s	0.0	40.9	41.0							18.2	16.4	0.0
Cycle Q Clear(g_c), s	0.0	40.9	41.0							18.2	16.4	0.0
Prop In Lane	0.00		0.07							0.97		0.00
Lane Grp Cap(c), veh/h	0	1984	1074							585	1117	0
V/C Ratio(X)	0.00	0.69	0.69							0.53	0.48	0.00
Avail Cap(c_a), veh/h	0	1984	1074							585	1117	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	35.1	35.1							41.1	40.2	0.0
Incr Delay (d2), s/veh	0.0	2.0	3.6							3.5	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	19.1	21.3							9.3	7.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	37.0	38.7							44.5	41.7	0.0
LnGrp LOS	A	D	D							D	D	A
Approach Vol, veh/h		2100									851	
Approach Delay, s/veh		37.6									42.8	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		69.0	41.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		64.1	36.1									
Max Q Clear Time (g_c+l1), s		43.0	20.2									
Green Ext Time (p_c), s		7.0	2.2									
Intersection Summary												
HCM 6th Ctrl Delay			39.1									
HCM 6th LOS			D									

SDCRAA ADP EIR
28: India St & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)
Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑						↑↑					
Traffic Volume (veh/h)	72	2342	0	0	0	0	0	202	244	0	0	0
Future Volume (veh/h)	72	2342	0	0	0	0	0	202	244	0	0	0
Initial Q (Qb), veh	0	0	0				0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.96			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	79	2574	0				0	222	268			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	85	2937	0				0	599	512			
Arrive On Green	0.19	0.19	0.00				0.00	0.34	0.34			
Sat Flow, veh/h	147	5288	0				0	1870	1517			
Grp Volume(v), veh/h	998	1655	0				0	222	268			
Grp Sat Flow(s),veh/h/ln	1863	1702	0				0	1777	1517			
Q Serve(g_s), s	58.0	51.6	0.0				0.0	10.4	15.6			
Cycle Q Clear(g_c), s	58.0	51.6	0.0				0.0	10.4	15.6			
Prop In Lane	0.08		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	1069	1953	0				0	599	512			
V/C Ratio(X)	0.93	0.85	0.00				0.00	0.37	0.52			
Avail Cap(c_a), veh/h	1069	1953	0				0	599	512			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	42.5	39.9	0.0				0.0	27.6	29.3			
Incr Delay (d2), s/veh	15.6	4.8	0.0				0.0	1.8	3.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	33.5	24.8	0.0				0.0	4.8	6.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	44.7	0.0				0.0	29.4	33.1			
LnGrp LOS	E	D	A				A	C	C			
Approach Vol, veh/h	2653					490						
Approach Delay, s/veh	49.8					31.4						
Approach LOS	D					C						
Timer - Assigned Phs	2					8						
Phs Duration (G+Y+Rc), s	68.0					42.0						
Change Period (Y+Rc), s	4.9					4.9						
Max Green Setting (Gmax), s	63.1					37.1						
Max Q Clear Time (g_c+I1), s	60.0					17.6						
Green Ext Time (p_c), s	3.0					3.2						
Intersection Summary												
HCM 6th Ctrl Delay			46.9									
HCM 6th LOS			D									

SDCRAA ADP EIR
29: Columbia St & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑								↙	↑↑	
Traffic Volume (veh/h)	0	2819	70	0	0	0	0	0	0	347	404	0
Future Volume (veh/h)	0	2819	70	0	0	0	0	0	0	347	404	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1870	1870							1870	1870	0
Adj Flow Rate, veh/h	0	3064	76							377	439	0
Peak Hour Factor	0.92	0.92	0.92							0.92	0.92	0.92
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	3358	83							455	908	0
Arrive On Green	0.00	0.22	0.22							0.08	0.08	0.00
Sat Flow, veh/h	0	5292	126							1781	3647	0
Grp Volume(v), veh/h	0	2027	1113							377	439	0
Grp Sat Flow(s),veh/h/ln	0	1702	1846							1781	1777	0
Q Serve(g_s), s	0.0	63.9	64.9							22.9	13.0	0.0
Cycle Q Clear(g_c), s	0.0	63.9	64.9							22.9	13.0	0.0
Prop In Lane	0.00		0.07							1.00		0.00
Lane Grp Cap(c), veh/h	0	2231	1210							455	908	0
V/C Ratio(X)	0.00	0.91	0.92							0.83	0.48	0.00
Avail Cap(c_a), veh/h	0	2231	1210							455	908	0
HCM Platoon Ratio	1.00	0.33	0.33							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	39.9	40.3							48.0	43.4	0.0
Incr Delay (d2), s/veh	0.0	6.9	12.7							15.9	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	31.1	36.2							13.0	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.7	53.0							63.8	45.3	0.0
LnGrp LOS	A	D	D							E	D	A
Approach Vol, veh/h		3140									816	
Approach Delay, s/veh		49.0									53.9	
Approach LOS		D									D	
Timer - Assigned Phs		2	4									
Phs Duration (G+Y+Rc), s		77.0	33.0									
Change Period (Y+Rc), s		4.9	4.9									
Max Green Setting (Gmax), s		72.1	28.1									
Max Q Clear Time (g_c+l1), s		66.9	24.9									
Green Ext Time (p_c), s		5.1	1.4									
Intersection Summary												
HCM 6th Ctrl Delay			50.0									
HCM 6th LOS			D									

SDCRAA ADP EIR
30: State St & W Grape St

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑							↑↑				
Traffic Volume (veh/h)	46	2747	40	0	0	0	0	99	77	0	0	0
Future Volume (veh/h)	46	2747	40	0	0	0	0	99	77	0	0	0
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			
Work Zone On Approach	No						No					
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870			
Adj Flow Rate, veh/h	54	3232	47				0	116	91			
Peak Hour Factor	0.85	0.85	0.85				0.85	0.85	0.85			
Percent Heavy Veh, %	2	2	2				0	2	2			
Cap, veh/h	59	3737	56				0	395	286			
Arrive On Green	0.23	0.23	0.23				0.00	0.20	0.20			
Sat Flow, veh/h	83	5263	79				0	2060	1424			
Grp Volume(v), veh/h	1217	1008	1108				0	104	103			
Grp Sat Flow(s),veh/h/ln	1866	1702	1856				0	1777	1614			
Q Serve(g_s), s	70.0	62.0	62.6				0.0	5.5	6.0			
Cycle Q Clear(g_c), s	70.0	62.0	62.6				0.0	5.5	6.0			
Prop In Lane	0.04		0.04				0.00		0.88			
Lane Grp Cap(c), veh/h	1325	1208	1318				0	357	324			
V/C Ratio(X)	0.92	0.83	0.84				0.00	0.29	0.32			
Avail Cap(c_a), veh/h	1325	1208	1318				0	357	324			
HCM Platoon Ratio	0.33	0.33	0.33				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	1.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	39.0	35.9	36.2				0.0	37.3	37.5			
Incr Delay (d2), s/veh	11.6	6.9	6.6				0.0	2.1	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.2	30.5	33.5				0.0	2.6	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.7	42.8	42.8				0.0	39.4	40.1			
LnGrp LOS	D	D	D				A	D	D			
Approach Vol, veh/h		3333						207				
Approach Delay, s/veh		45.7						39.7				
Approach LOS		D						D				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		83.0						27.0				
Change Period (Y+Rc), s		4.9						4.9				
Max Green Setting (Gmax), s		78.1						22.1				
Max Q Clear Time (g_c+I1), s		72.0						8.0				
Green Ext Time (p_c), s		6.0						1.0				
Intersection Summary												
HCM 6th Ctrl Delay			45.3									
HCM 6th LOS			D									



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑		↰	↰
Traffic Volume (veh/h)	13	1087	873	5	107	180
Future Volume (veh/h)	13	1087	873	5	107	180
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1826	1870	1870
Adj Flow Rate, veh/h	14	1182	949	5	116	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	5	5	2	2
Cap, veh/h	22	3824	3671	19	491	225
Arrive On Green	0.01	0.77	1.00	1.00	0.14	0.14
Sat Flow, veh/h	1781	5149	5282	27	3456	1585
Grp Volume(v), veh/h	14	1182	616	338	116	196
Grp Sat Flow(s), veh/h/ln	1781	1662	1662	1821	1728	1585
Q Serve(g_s), s	0.9	8.5	0.0	0.0	3.5	14.3
Cycle Q Clear(g_c), s	0.9	8.5	0.0	0.0	3.5	14.3
Prop In Lane	1.00			0.01	1.00	1.00
Lane Grp Cap(c), veh/h	22	3824	2384	1306	491	225
V/C Ratio(X)	0.63	0.31	0.26	0.26	0.24	0.87
Avail Cap(c_a), veh/h	319	3824	2384	1306	884	406
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.96	0.96	1.00	1.00
Uniform Delay (d), s/veh	58.0	4.2	0.0	0.0	44.9	49.5
Incr Delay (d2), s/veh	9.7	0.2	0.3	0.5	0.1	4.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	2.2	0.1	0.2	1.5	12.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	67.7	4.4	0.3	0.5	45.0	53.5
LnGrp LOS	E	A	A	A	D	D
Approach Vol, veh/h		1196	954		312	
Approach Delay, s/veh		5.1	0.3		50.4	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		96.3		21.7	5.9	90.4
Change Period (Y+Rc), s		* 5.8		4.9	4.4	5.8
Max Green Setting (Gmax), s		* 77		30.2	21.1	51.6
Max Q Clear Time (g_c+I1), s		10.5		16.3	2.9	2.0
Green Ext Time (p_c), s		30.5		0.5	0.0	18.0

Intersection Summary

HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑↑↑		↑↑↑	↑↑↑	↑	↑	↑	↑	↑↑↑	↑	↑
Traffic Volume (veh/h)	137	1059	18	17	824	11	0	13	27	89	0	16
Future Volume (veh/h)	137	1059	18	17	824	11	0	13	27	89	0	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	1217	21	20	947	0	0	15	31	102	0	18
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	5	5	2	5	2	2	2	2	2	2	2
Cap, veh/h	727	3534	61	60	1567		63	19	39	214	0	98
Arrive On Green	0.82	1.00	1.00	0.03	0.31	0.00	0.00	0.04	0.04	0.06	0.00	0.06
Sat Flow, veh/h	1781	5046	87	1781	4985	1585	1781	541	1117	3456	0	1577
Grp Volume(v), veh/h	157	801	437	20	947	0	0	0	46	102	0	18
Grp Sat Flow(s), veh/h/ln	1781	1662	1810	1781	1662	1585	1781	0	1658	1728	0	1577
Q Serve(g_s), s	2.3	0.0	0.0	1.3	19.0	0.0	0.0	0.0	3.2	3.4	0.0	1.3
Cycle Q Clear(g_c), s	2.3	0.0	0.0	1.3	19.0	0.0	0.0	0.0	3.2	3.4	0.0	1.3
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	727	2327	1268	60	1567		63	0	58	214	0	98
V/C Ratio(X)	0.22	0.34	0.34	0.33	0.60		0.00	0.00	0.79	0.48	0.00	0.18
Avail Cap(c_a), veh/h	727	2327	1268	168	1567		251	0	233	999	0	456
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.6	0.0	0.0	55.7	34.2	0.0	0.0	0.0	56.5	53.5	0.0	52.5
Incr Delay (d2), s/veh	0.1	0.4	0.7	1.2	1.7	0.0	0.0	0.0	8.6	0.6	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 BackOfQ(50%), veh/ln	0.8	0.1	0.3	0.6	7.6	0.0	0.0	0.0	1.5	1.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.7	0.4	0.7	56.9	36.0	0.0	0.0	0.0	65.1	54.1	0.0	52.8
LnGrp LOS	A	A	A	E	D		A	A	E	D	A	D
Approach Vol, veh/h	1395			967			46			120		
Approach Delay, s/veh	1.2			36.4			65.1			53.9		
Approach LOS	A			D			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	88.3			12.2	53.8	42.9		9.0				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.8		4.9				
Max Green Setting (Gmax), s	21.6			34.1	10.2	* 37		16.6				
Max Q Clear Time (g_c+13), s	2.0			5.4	4.3	21.0		5.2				
Green Ext Time (p_c), s	0.0	12.4		0.2	0.1	8.6		0.1				

Intersection Summary

HCM 6th Ctrl Delay 18.3

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1337	130	284	987	0	144	32	330	0	24	119
Future Volume (veh/h)	158	1337	130	284	987	0	144	32	330	0	24	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	170	1438	140	305	1061	0	155	34	0	0	26	128
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	607	3037	1067	310	2198	0	221	120		0	128	175
Arrive On Green	0.34	0.61	0.61	0.09	0.35	0.00	0.06	0.06	0.00	0.00	0.07	0.07
Sat Flow, veh/h	1781	4985	1584	3456	6537	0	3456	1870	1585	0	1870	2569
Grp Volume(v), veh/h	170	1438	140	305	1061	0	155	34	0	0	26	128
Grp Sat Flow(s), veh/h/ln	1781	1662	1584	1728	1570	0	1728	1870	1585	0	1870	1285
Q Serve(g_s), s	8.2	18.7	3.7	10.4	15.6	0.0	5.2	2.0	0.0	0.0	1.5	5.8
Cycle Q Clear(g_c), s	8.2	18.7	3.7	10.4	15.6	0.0	5.2	2.0	0.0	0.0	1.5	5.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	607	3037	1067	310	2198	0	221	120		0	128	175
V/C Ratio(X)	0.28	0.47	0.13	0.98	0.48	0.00	0.70	0.28		0.00	0.20	0.73
Avail Cap(c_a), veh/h	607	3037	1067	310	2198	0	1084	586		0	255	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	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	0.99	0.99	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	12.7	6.9	53.6	30.0	0.0	54.1	52.7	0.0	0.0	51.9	53.9
Incr Delay (d2), s/veh	0.1	0.5	0.3	46.0	0.8	0.0	1.5	0.5	0.0	0.0	0.8	5.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.4	6.4	1.5	6.4	5.8	0.0	2.3	1.0	0.0	0.0	0.8	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.4	13.2	7.2	99.6	30.8	0.0	55.6	53.1	0.0	0.0	52.7	59.6
LnGrp LOS	C	B	A	F	C	A	E	D		A	D	E
Approach Vol, veh/h	1748			1366			189			154		
Approach Delay, s/veh	14.2			46.1			55.2			58.5		
Approach LOS	B			D			E			E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	77.6		13.0	45.9	46.7		12.4				
Change Period (Y+Rc), s	4.4	5.7		4.9	5.7	* 5.4		4.9				
Max Green Setting (Gmax), s	10.6	34.4		16.1	4.0	* 41		37.0				
Max Q Clear Time (g_c+1/2, s)	12.4	20.7		7.8	10.2	17.6		7.2				
Green Ext Time (p_c), s	0.0	11.2		0.3	0.0	14.8		0.4				

Intersection Summary

HCM 6th Ctrl Delay 31.0

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	0	41	5	0	20	22	377	14	14	400	65
Future Volume (veh/h)	83	0	41	5	0	20	22	377	14	14	400	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	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
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	31	44	5	12	13	23	401	15	15	426	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	153	59	84	16	38	44	200	1106	41	202	970	156
Arrive On Green	0.09	0.09	0.09	0.03	0.03	0.03	0.11	0.32	0.32	0.11	0.32	0.32
Sat Flow, veh/h	1781	685	973	542	1301	1538	1781	3490	130	1781	3056	491
Grp Volume(v), veh/h	66	0	75	17	0	13	23	204	212	15	246	249
Grp Sat Flow(s),veh/h/ln	1781	0	1658	1843	0	1538	1781	1777	1844	1781	1777	1770
Q Serve(g_s), s	1.2	0.0	1.5	0.3	0.0	0.3	0.4	3.1	3.1	0.3	3.9	3.9
Cycle Q Clear(g_c), s	1.2	0.0	1.5	0.3	0.0	0.3	0.4	3.1	3.1	0.3	3.9	3.9
Prop In Lane	1.00		0.59	0.29		1.00	1.00		0.07	1.00		0.28
Lane Grp Cap(c), veh/h	153	0	142	53	0	44	200	563	584	202	564	562
V/C Ratio(X)	0.43	0.00	0.53	0.32	0.00	0.29	0.11	0.36	0.36	0.07	0.44	0.44
Avail Cap(c_a), veh/h	2027	0	1887	2098	0	1751	1267	2527	2623	2027	2527	2518
HCM Platoon Ratio	1.00	1.00	1.00	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	15.3	0.0	15.4	16.7	0.0	16.7	14.0	9.3	9.3	13.9	9.5	9.5
Incr Delay (d2), s/veh	1.4	0.0	2.2	1.3	0.0	1.3	0.1	0.3	0.3	0.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.6	0.1	0.0	0.1	0.1	0.9	0.9	0.1	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	0.0	17.6	18.0	0.0	18.1	14.1	9.6	9.6	14.0	9.9	9.9
LnGrp LOS	B	A	B	B	A	B	B	A	A	B	A	A
Approach Vol, veh/h	141				30		439				510	
Approach Delay, s/veh	17.2				18.0		9.8				10.0	
Approach LOS	B				B		A				B	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	8.0	15.1	7.0		8.0	15.2	5.0					
Change Period (Y+Rc), s	4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gmax), s	40.0	50.0	40.0		25.0	50.0	40.0					
Max Q Clear Time (g_c+I2,3), s	12.3	5.1	3.5		2.4	5.9	2.3					
Green Ext Time (p_c), s	0.0	2.0	0.5		0.0	2.5	0.1					

Intersection Summary

HCM 6th Ctrl Delay 11.1

HCM 6th LOS B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	255	17	9	151	172	276
Future Volume (veh/h)	255	17	9	151	172	276
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	294	0	10	0	189	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	616	324	980		324	
Arrive On Green	0.17	0.00	0.52	0.00	0.09	0.00
Sat Flow, veh/h	3563	1870	1870	1585	3456	1585
Grp Volume(v), veh/h	294	0	10	0	189	0
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1728	1585
Q Serve(g_s), s	4.3	0.0	0.1	0.0	3.0	0.0
Cycle Q Clear(g_c), s	4.3	0.0	0.1	0.0	3.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	616	324	980		324	
V/C Ratio(X)	0.48	0.00	0.01		0.58	
Avail Cap(c_a), veh/h	3110	1633	980		2413	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	21.3	0.0	6.5	0.0	24.9	0.0
Incr Delay (d2), s/veh	0.6	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
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	0.0	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.9	0.0	6.5	0.0	26.6	0.0
LnGrp LOS	C	A	A		C	
Approach Vol, veh/h		294	10	A	189	A
Approach Delay, s/veh		21.9	6.5		26.6	
Approach LOS		C	A		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.9		9.4		34.0
Change Period (Y+Rc), s		4.0		4.0		4.0
Max Green Setting (Gmax), s		50.0		40.0		30.0
Max Q Clear Time (g_c+I1), s		6.3		5.0		2.1
Green Ext Time (p_c), s		1.1		0.6		0.0

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

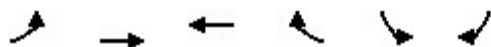
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕	
Traffic Vol, veh/h	9	191	156	10	1	2
Future Vol, veh/h	9	191	156	10	1	2
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	222	181	12	1	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	193	0	-	0	318	97
Stage 1	-	-	-	-	187	-
Stage 2	-	-	-	-	131	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1378	-	-	-	650	940
Stage 1	-	-	-	-	826	-
Stage 2	-	-	-	-	881	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1378	-	-	-	645	940
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	819	-
Stage 2	-	-	-	-	881	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		9.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1378	-	-	-	816	
HCM Lane V/C Ratio	0.008	-	-	-	0.004	
HCM Control Delay (s)	7.6	0	-	-	9.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0	

SDCRAA ADP EIR
37: N Harbor Dr & Winship Ln

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2042	2376	0	0	0
Future Volume (veh/h)	0	2042	2376	0	0	0
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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1870	1870
Adj Flow Rate, veh/h	0	2172	2528	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	2	2
Cap, veh/h	2	4761	7063		3	1
Arrive On Green	0.00	0.96	0.96	0.00	0.00	0.00
Sat Flow, veh/h	1781	5149	7742	1585	3456	1585
Grp Volume(v), veh/h	0	2172	2528	0	0	0
Grp Sat Flow(s),veh/h/ln	1781	1662	1479	1585	1728	1585
Q Serve(g_s), s	0.0	4.1	2.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.1	2.8	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2	4761	7063		3	1
V/C Ratio(X)	0.00	0.46	0.36		0.00	0.00
Avail Cap(c_a), veh/h	319	4761	7063		723	332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.2	0.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.5	0.3	0.0	0.0	0.0
LnGrp LOS	A	A	A		A	A
Approach Vol, veh/h		2172	2528	A	0	
Approach Delay, s/veh		0.5	0.3		0.0	
Approach LOS		A	A			
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		118.0		0.0	0.0	118.0
Change Period (Y+Rc), s		5.3		4.9	4.4	5.3
Max Green Setting (Gmax), s		83.1		24.7	21.1	57.6
Max Q Clear Time (g_c+I1), s		6.1		0.0	0.0	4.8
Green Ext Time (p_c), s		66.8		0.0	0.0	50.7
Intersection Summary						
HCM 6th Ctrl Delay			0.4			
HCM 6th LOS			A			

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3353	14	28	822	3	13	0	37	102	0	15
Future Volume (veh/h)	0	3353	14	28	822	3	13	0	37	102	0	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.92		0.92	0.93		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00	1.00
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1870	1826	1870	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3605	15	30	884	3	14	0	40	110	0	16
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	5	2	2	5	5	2	2	2	2	2	2
Cap, veh/h	2	4258	1074	73	4795	16	277	0	232	262	0	257
Arrive On Green	0.00	0.68	0.68	0.04	1.00	1.00	0.18	0.00	0.18	0.18	0.00	0.18
Sat Flow, veh/h	1781	6281	1584	3456	6511	22	1220	0	1308	1265	0	1453
Grp Volume(v), veh/h	0	3605	15	30	640	247	14	0	40	110	0	16
Grp Sat Flow(s),veh/h/ln	1781	1570	1584	1728	1570	1822	1220	0	1308	1265	0	1453
Q Serve(g_s), s	0.0	51.2	0.4	1.0	0.0	0.0	1.1	0.0	3.1	9.5	0.0	1.1
Cycle Q Clear(g_c), s	0.0	51.2	0.4	1.0	0.0	0.0	2.2	0.0	3.1	11.6	0.0	1.1
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	4258	1074	73	3469	1342	277	0	232	262	0	257
V/C Ratio(X)	0.00	0.85	0.01	0.41	0.18	0.18	0.05	0.00	0.17	0.42	0.00	0.06
Avail Cap(c_a), veh/h	168	4258	1074	618	3469	1342	319	0	274	303	0	304
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.4	6.2	55.8	0.0	0.0	41.3	0.0	41.2	45.7	0.0	40.4
Incr Delay (d2), s/veh	0.0	2.3	0.0	1.4	0.1	0.3	0.0	0.0	0.1	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 BackOfQ(50%),veh/ln	0.0	15.5	0.1	0.4	0.0	0.1	0.4	0.0	1.0	3.0	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.6	6.2	57.1	0.1	0.3	41.3	0.0	41.3	46.1	0.0	40.4
LnGrp LOS	A	B	A	E	A	A	D	A	D	D	A	D
Approach Vol, veh/h	3620				917				54		126	
Approach Delay, s/veh	16.6				2.0				41.3		45.4	
Approach LOS	B				A				D		D	
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	6.9	85.3	25.8		0.0	92.2	25.8					
Change Period (Y+Rc), s	4.4	5.3	4.9		4.4	5.3	4.9					
Max Green Setting (Gmax), s	21.5	57.6	24.7		11.1	67.6	24.7					
Max Q Clear Time (g_c+I), s	13.0	53.2	13.6		0.0	2.0	5.1					
Green Ext Time (p_c), s	0.0	4.4	0.2		0.0	17.0	0.1					

Intersection Summary

HCM 6th Ctrl Delay 14.8

HCM 6th LOS B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳			↰ ↱ ↲ ↳				↰ ↱ ↲ ↳		↰ ↱ ↲ ↳		
Traffic Volume (veh/h)	9	3286	0	11	516	60	0	0	0	5	0	5
Future Volume (veh/h)	9	3286	0	11	516	60	0	0	0	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	0.98		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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	1826	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	10	3496	0	12	549	64	0	0	0	5	0	5
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	5	5	2	5	5	2	2	2	2	2	2
Cap, veh/h	17	4074	0	60	4851	551	0	47	0	207	0	39
Arrive On Green	0.00	0.27	0.00	0.03	0.84	0.84	0.00	0.00	0.00	0.03	0.00	0.03
Sat Flow, veh/h	1781	5149	0	1781	5764	655	0	1870	0	3373	0	1557
Grp Volume(v), veh/h	10	3496	0	12	446	167	0	0	0	5	0	5
Grp Sat Flow(s), veh/h/ln	1781	1662	0	1781	1570	1708	0	1870	0	1687	0	1557
Q Serve(g_s), s	0.7	78.6	0.0	0.8	2.0	2.0	0.0	0.0	0.0	0.2	0.0	0.4
Cycle Q Clear(g_c), s	0.7	78.6	0.0	0.8	2.0	2.0	0.0	0.0	0.0	0.2	0.0	0.4
Prop In Lane	1.00		0.00	1.00		0.38	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	17	4074	0	60	3965	1438	0	47	0	207	0	39
V/C Ratio(X)	0.59	0.86	0.00	0.20	0.11	0.12	0.00	0.00	0.00	0.02	0.00	0.13
Avail Cap(c_a), veh/h	168	4074	0	168	3965	1438	0	471	0	971	0	392
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.6	36.6	0.0	55.4	1.6	1.6	0.0	0.0	0.0	56.2	0.0	56.3
Incr Delay (d2), s/veh	6.4	1.4	0.0	0.6	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.3	35.1	0.0	0.3	0.3	0.4	0.0	0.0	0.0	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	65.0	38.0	0.0	56.0	1.7	1.8	0.0	0.0	0.0	56.2	0.0	56.8
LnGrp LOS	E	D	A	E	A	A	A	A	A	E	A	E
Approach Vol, veh/h	3506			625			0			10		
Approach Delay, s/veh	38.1			2.8			0.0			56.5		
Approach LOS	D			A						E		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	101.7			7.9	5.5	104.6		7.9				
Change Period (Y+Rc), s	4.4	5.3		4.9	4.4	5.3		4.9				
Max Green Setting (Gmax), s	62.6			29.7	11.1	62.6		29.7				
Max Q Clear Time (g_c+I), s	80.6			2.4	2.7	4.0		0.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	9.5		0.0				

Intersection Summary

HCM 6th Ctrl Delay 32.8

HCM 6th LOS C

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↑↑↑ ↱			↰ ↑↑↑ ↱								
Traffic Volume (veh/h)	0	3264	2	14	657	0	0	0	18	0	0	0
Future Volume (veh/h)	0	3264	2	14	657	0	0	0	18	0	0	0
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						
Work Zone On Approach	No			No								
Adj Sat Flow, veh/h/ln	1870	1826	1826	1870	1826	0						
Adj Flow Rate, veh/h	0	3400	2	15	684	0						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96						
Percent Heavy Veh, %	2	5	5	2	5	0						
Cap, veh/h	3	4371	3	26	4617	0						
Arrive On Green	0.00	0.85	0.85	0.01	0.93	0.00						
Sat Flow, veh/h	1781	5145	3	1781	5149	0						
Grp Volume(v), veh/h	0	2196	1206	15	684	0						
Grp Sat Flow(s),veh/h/ln	1781	1662	1825	1781	1662	0						
Q Serve(g_s), s	0.0	20.7	20.7	0.6	0.8	0.0						
Cycle Q Clear(g_c), s	0.0	20.7	20.7	0.6	0.8	0.0						
Prop In Lane	1.00		0.00	1.00		0.00						
Lane Grp Cap(c), veh/h	3	2823	1551	26	4617	0						
V/C Ratio(X)	0.00	0.78	0.78	0.58	0.15	0.00						
Avail Cap(c_a), veh/h	758	2827	1553	758	4617	0						
HCM Platoon Ratio	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	0.00						
Uniform Delay (d), s/veh	0.0	2.4	2.4	34.5	0.2	0.0						
Incr Delay (d2), s/veh	0.0	1.9	3.4	7.5	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	0.7	1.5	0.3	0.0	0.0						
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	4.3	5.8	42.1	0.3	0.0						
LnGrp LOS	A	A	A	D	A	A						
Approach Vol, veh/h	3402		699									
Approach Delay, s/veh	4.8		1.2									
Approach LOS	A		A									
Timer - Assigned Phs	1	2	5			6						
Phs Duration (G+Y+Rc), s	5.4	65.1	0.0			70.5						
Change Period (Y+Rc), s	4.4	5.2	4.4			5.2						
Max Green Setting (Gmax), s	30.0	60.0	30.0			60.0						
Max Q Clear Time (g_c+I), s	12.6	22.7	0.0			2.8						
Green Ext Time (p_c), s	0.0	37.2	0.0			13.7						
Intersection Summary												
HCM 6th Ctrl Delay			4.2									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	178.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	415	0	0	2137	391
Future Vol, veh/h	0	415	0	0	2137	391
Conflicting Peds, #/hr	0	3	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	16979	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	441	0	0	2273	416
Major/Minor	Minor2		Major2			
Conflicting Flow All	2481	1348			-	0
Stage 1	2481	-			-	-
Stage 2	0	-			-	-
Critical Hdwy	5.74	7.14			-	-
Critical Hdwy Stg 1	6.64	-			-	-
Critical Hdwy Stg 2	-	-			-	-
Follow-up Hdwy	3.82	3.92			-	-
Pot Cap-1 Maneuver	51	~ 121			-	-
Stage 1	28	-			-	-
Stage 2	-	-			-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	51	~ 121			-	-
Mov Cap-2 Maneuver	51	-			-	-
Stage 1	28	-			-	-
Stage 2	-	-			-	-
Approach	EB		SB			
HCM Control Delay, \$	1266.3				0	
HCM LOS	F					
Minor Lane/Major Mvmt	EBLn1	EBLn2	SBT	SBR		
Capacity (veh/h)		- 121	-	-		
HCM Lane V/C Ratio		- 3.649	-	-		
HCM Control Delay (s)		\$ 1266.3	-	-		
HCM Lane LOS		A F	-	-		
HCM 95th %tile Q(veh)		- 43.8	-	-		
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

SDCRAA ADP EIR
42: Lanning Rd & N Harbor Dr

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Traffic Volume (veh/h)	104	667	28	19	684	331	34	58	40	210	28	150
Future Volume (veh/h)	104	667	28	19	684	331	34	58	40	210	28	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	749	31	21	769	372	38	65	45	236	31	169
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	1163	357	630	2612	807	193	329	245	364	496	436
Arrive On Green	0.05	0.15	0.15	0.35	0.51	0.51	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1781	5106	1568	1781	5106	1578	524	1178	877	1267	1777	1560
Grp Volume(v), veh/h	117	749	31	21	769	372	70	0	78	236	31	169
Grp Sat Flow(s),veh/h/ln	1781	1702	1568	1781	1702	1578	1065	0	1514	1267	1777	1560
Q Serve(g_s), s	7.8	16.5	2.0	0.9	10.4	18.1	2.7	0.0	4.7	20.9	1.5	10.5
Cycle Q Clear(g_c), s	7.8	16.5	2.0	0.9	10.4	18.1	13.2	0.0	4.7	25.6	1.5	10.5
Prop In Lane	1.00		1.00	1.00		1.00	0.54		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	144	1163	357	630	2612	807	344	0	423	364	496	436
V/C Ratio(X)	0.81	0.64	0.09	0.03	0.29	0.46	0.20	0.00	0.18	0.65	0.06	0.39
Avail Cap(c_a), veh/h	313	1974	606	630	2612	807	553	0	647	552	760	667
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	46.3	40.1	25.4	16.9	18.7	36.1	0.0	32.8	42.6	31.7	34.9
Incr Delay (d2), s/veh	4.0	2.7	0.5	0.0	0.3	1.8	0.1	0.0	0.1	5.5	0.2	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	7.4	0.8	0.4	3.9	6.6	1.7	0.0	1.7	7.1	0.7	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	48.9	40.6	25.4	17.1	20.5	36.2	0.0	32.9	48.1	31.9	36.6
LnGrp LOS	E	D	D	C	B	C	D	A	C	D	C	D
Approach Vol, veh/h		897			1162			148			436	
Approach Delay, s/veh		50.1			18.4			34.5			42.5	
Approach LOS		D			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	48.5	33.0		38.4	14.1	67.5		38.4				
Change Period (Y+Rc), s	6.1	* 5.7		4.9	4.4	6.1		4.9				
Max Green Setting (Gmax), s	7.3	* 46		51.3	21.1	32.2		51.3				
Max Q Clear Time (g_c+I1), s	2.9	18.5		27.6	9.8	20.1		15.2				
Green Ext Time (p_c), s	0.0	8.8		5.0	0.1	8.6		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳		↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	↰ ↱ ↲ ↳	
Traffic Volume (veh/h)	50	501	1	0	475	397	1	0	0	287	0	33
Future Volume (veh/h)	50	501	1	0	475	397	1	0	0	287	0	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	551	1	0	522	0	1	0	0	349	0	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	983	2	861	2260		19	0	17	489	257	0
Arrive On Green	0.04	0.19	0.19	0.00	0.21	0.00	0.01	0.00	0.00	0.14	0.00	0.00
Sat Flow, veh/h	1781	5263	10	1781	3554	1585	1781	0	1585	3563	1870	0
Grp Volume(v), veh/h	55	356	196	0	522	0	1	0	0	349	0	0
Grp Sat Flow(s), veh/h/ln	1781	1702	1869	1781	1777	1585	1781	0	1585	1781	1870	0
Q Serve(g_s), s	3.7	11.4	11.4	0.0	14.6	0.0	0.1	0.0	0.0	11.2	0.0	0.0
Cycle Q Clear(g_c), s	3.7	11.4	11.4	0.0	14.6	0.0	0.1	0.0	0.0	11.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	71	636	349	861	2260		19	0	17	489	257	0
V/C Ratio(X)	0.77	0.56	0.56	0.00	0.23		0.05	0.00	0.00	0.71	0.00	0.00
Avail Cap(c_a), veh/h	224	1166	640	861	2260		157	0	140	1101	578	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.96	0.00	1.00	0.00	0.00	0.90	0.00	0.00
Uniform Delay (d), s/veh	57.1	44.3	44.3	0.0	23.0	0.0	58.7	0.0	0.0	49.5	0.0	0.0
Incr Delay (d2), s/veh	6.5	3.5	6.4	0.0	0.2	0.0	0.4	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 BackOfQ(50%),veh/ln	1.7	5.0	5.8	0.0	7.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	47.9	50.7	0.0	23.3	0.0	59.1	0.0	0.0	50.2	0.0	0.0
LnGrp LOS	E	D	D	A	C		E	A	A	D	A	A
Approach Vol, veh/h	607			522			1			349		
Approach Delay, s/veh	50.2			23.3			59.1			50.2		
Approach LOS	D			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	63.9	27.5		22.4	9.2	82.2		6.2				
Change Period (Y+Rc), s	5.9	* 5.1		5.9	4.4	5.9		4.9				
Max Green Setting (Gmax), s	40.9	* 41		37.1	15.1	36.1		10.6				
Max Q Clear Time (g_c+I10), s	13.4			13.2	5.7	16.6		2.1				
Green Ext Time (p_c), s	0.0	9.0		0.6	0.0	5.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

SDCRAA ADP EIR
44: Rosecrans St & Nimitz Blvd

2024 Baseline Conditions + Construction Traffic (ALT 4)

Timing Plan: PM PEAK



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	249	127	32	368	179	198	868	27	117	801	183
Future Volume (veh/h)	282	249	127	32	368	179	198	868	27	117	801	183
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		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	265	135	34	391	190	211	923	29	124	852	195
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	321	701	345	45	524	304	257	1730	54	168	1657	735
Arrive On Green	0.18	0.31	0.31	0.03	0.15	0.15	0.07	0.49	0.49	0.05	0.47	0.47
Sat Flow, veh/h	1781	2293	1131	1781	3554	1537	3456	3516	110	3456	3554	1576
Grp Volume(v), veh/h	300	203	197	34	391	190	211	466	486	124	852	195
Grp Sat Flow(s),veh/h/ln	1781	1777	1647	1781	1777	1537	1728	1777	1850	1728	1777	1576
Q Serve(g_s), s	24.9	13.5	14.1	2.8	15.8	11.2	9.0	27.1	27.1	5.3	25.2	6.0
Cycle Q Clear(g_c), s	24.9	13.5	14.1	2.8	15.8	11.2	9.0	27.1	27.1	5.3	25.2	6.0
Prop In Lane	1.00		0.69	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	321	543	503	45	524	304	257	874	910	168	1657	735
V/C Ratio(X)	0.94	0.37	0.39	0.76	0.75	0.63	0.82	0.53	0.53	0.74	0.51	0.27
Avail Cap(c_a), veh/h	387	668	619	82	734	395	544	874	910	258	1657	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.6	40.8	41.1	72.6	61.3	27.7	68.4	26.3	26.3	70.4	28.1	6.9
Incr Delay (d2), s/veh	25.5	0.2	0.2	8.9	1.4	0.8	2.5	2.3	2.2	2.4	1.1	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 BackOfQ(50%),veh/ln	3.6	6.0	5.8	1.4	7.3	4.2	4.1	12.1	12.6	2.4	11.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.1	41.0	41.3	81.5	62.6	28.5	70.9	28.6	28.5	72.8	29.2	7.8
LnGrp LOS	F	D	D	F	E	C	E	C	C	E	C	A
Approach Vol, veh/h	700			615			1163			1171		
Approach Delay, s/veh	60.4			53.1			36.2			30.3		
Approach LOS	E			D			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	79.1	8.2	51.0	15.5	75.2	32.2	27.0				
Change Period (Y+Rc), s	4.4	* 5.3	4.4	5.2	4.4	5.3	5.2	* 4.9				
Max Green Setting (Gmax), s	1.2	* 57	6.9	56.4	23.6	43.8	32.6	* 31				
Max Q Clear Time (g_c+17), s	17.3	29.1	4.8	16.1	11.0	27.2	26.9	17.8				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.9	0.1	2.4	0.1	1.0				

Intersection Summary

HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

User approved changes to right turn type.

