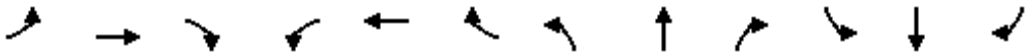
HCM 6th Signalized Intersection Summary
1: Long Beach Blvd & E San Antonio Dr

01/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	81	27	296	160	89	39	588	142	68	773	117
Future Volume (veh/h)	82	81	27	296	160	89	39	588	142	68	773	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	88	29	248	278	97	42	639	154	74	840	127
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	182	137	45	354	371	315	285	1010	243	332	1501	227
Arrive On Green	0.10	0.10	0.10	0.20	0.20	0.20	0.36	0.36	0.36	0.06	0.48	0.48
Sat Flow, veh/h	1781	1347	444	1781	1870	1585	581	2841	684	1781	3095	468
Grp Volume(v), veh/h	89	0	117	248	278	97	42	399	394	74	482	485
Grp Sat Flow(s),veh/h/ln	1781	0	1790	1781	1870	1585	581	1777	1747	1781	1777	1786
Q Serve(g_s), s	3.0	0.0	3.9	8.2	8.8	3.3	3.5	11.8	11.8	1.5	12.1	12.1
Cycle Q Clear(g_c), s	3.0	0.0	3.9	8.2	8.8	3.3	7.4	11.8	11.8	1.5	12.1	12.1
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.39	1.00		0.26
Lane Grp Cap(c), veh/h	182	0	183	354	371	315	285	632	621	332	862	866
V/C Ratio(X)	0.49	0.00	0.64	0.70	0.75	0.31	0.15	0.63	0.63	0.22	0.56	0.56
Avail Cap(c_a), veh/h	510	0	512	510	535	454	285	632	621	371	862	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	27.1	23.5	23.7	21.5	16.9	16.8	16.9	11.8	11.5	11.5
Incr Delay (d2), s/veh	2.0	0.0	3.7	2.5	3.5	0.5	1.1	4.8	4.9	0.3	2.6	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	1.3	0.0	1.8	3.5	4.0	1.2	0.5	5.2	5.1	0.6	4.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	30.8	26.0	27.2	22.1	18.0	21.6	21.7	12.1	14.1	14.1
LnGrp LOS	C	A	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		206			623			835			1041	
Approach Delay, s/veh		29.9			25.9			21.5			13.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.1	26.9		10.9		35.0		17.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.0	21.0		18.0		30.5		18.0				
Max Q Clear Time (g_c+I1), s	3.5	13.8		5.9		14.1		10.8				
Green Ext Time (p_c), s	0.0	3.1		0.6		5.9		1.7				

Intersection Summary			
HCM 6th Ctrl Delay		20.2	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	1	67	0	145	2	631	62	145	973	9
Future Volume (veh/h)	0	1	1	67	0	145	2	631	62	145	973	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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1	73	0	158	2	686	67	158	1058	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	92	92	304	0	300	424	1675	163	590	2528	24
Arrive On Green	0.00	0.11	0.11	0.11	0.00	0.11	0.51	0.51	0.51	0.09	0.70	0.70
Sat Flow, veh/h	0	858	858	1401	0	2790	528	3271	319	1781	3607	34
Grp Volume(v), veh/h	0	0	2	73	0	158	2	372	381	158	521	547
Grp Sat Flow(s),veh/h/ln	0	0	1716	1401	0	1395	528	1777	1813	1781	1777	1864
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	2.5	0.1	6.1	6.1	1.6	5.8	5.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	2.5	0.1	6.1	6.1	1.6	5.8	5.8
Prop In Lane	0.00		0.50	1.00		1.00	1.00		0.18	1.00		0.02
Lane Grp Cap(c), veh/h	0	0	184	304	0	300	424	910	928	590	1245	1306
V/C Ratio(X)	0.00	0.00	0.01	0.24	0.00	0.53	0.00	0.41	0.41	0.27	0.42	0.42
Avail Cap(c_a), veh/h	0	0	662	697	0	1076	424	910	928	747	1245	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.7	19.8	0.0	19.8	5.6	7.1	7.1	4.1	3.0	3.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	1.4	0.0	1.4	1.3	0.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.8	0.0	2.0	2.0	0.3	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.2	0.0	21.3	5.6	8.4	8.4	4.3	4.0	4.0
LnGrp LOS	A	A	B	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		2			231			755			1226	
Approach Delay, s/veh		18.7			20.9			8.4			4.0	
Approach LOS		B			C			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.9	28.5		9.5		37.4		9.5				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	8.5	19.9		18.1		32.9		18.1				
Max Q Clear Time (g_c+I1), s	3.6	8.1		2.0		7.8		4.5				
Green Ext Time (p_c), s	0.2	3.7		0.0		7.9		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		7.3
HCM 6th LOS		A

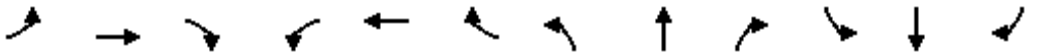
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	4	14	702	1007	8
Future Vol, veh/h	1	4	14	702	1007	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	4	15	763	1095	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1512	552	1104	0	-	0
Stage 1	1100	-	-	-	-	-
Stage 2	412	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	111	477	628	-	-	-
Stage 1	280	-	-	-	-	-
Stage 2	637	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	477	628	-	-	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	637	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	628	-	283	-	-
HCM Lane V/C Ratio	0.024	-	0.019	-	-
HCM Control Delay (s)	10.9	-	18	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	29	35	63	51	39	77	732	74	63	910	13
Future Volume (veh/h)	5	29	35	63	51	39	77	732	74	63	910	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	32	38	68	55	42	84	796	80	68	989	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	309	109	130	331	138	105	459	2015	202	506	2217	31
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1298	779	925	1331	984	751	562	3261	328	633	3587	51
Grp Volume(v), veh/h	5	0	70	68	0	97	84	434	442	68	490	513
Grp Sat Flow(s),veh/h/ln	1298	0	1704	1331	0	1735	562	1777	1811	633	1777	1861
Q Serve(g_s), s	0.1	0.0	1.4	1.8	0.0	1.9	3.5	4.6	4.6	2.3	5.4	5.4
Cycle Q Clear(g_c), s	2.0	0.0	1.4	3.2	0.0	1.9	8.9	4.6	4.6	6.9	5.4	5.4
Prop In Lane	1.00		0.54	1.00		0.43	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	309	0	239	331	0	243	459	1098	1119	506	1098	1150
V/C Ratio(X)	0.02	0.00	0.29	0.21	0.00	0.40	0.18	0.39	0.40	0.13	0.45	0.45
Avail Cap(c_a), veh/h	755	0	824	788	0	839	459	1098	1119	506	1098	1150
HCM Platoon Ratio	1.00	1.00	1.00	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	14.3	15.8	0.0	14.6	6.1	3.6	3.6	5.3	3.7	3.7
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	0.0	1.1	0.9	1.1	1.0	0.6	1.3	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	0.0	0.0	0.5	0.5	0.0	0.7	0.4	0.9	1.0	0.3	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	15.0	16.1	0.0	15.6	7.0	4.7	4.6	5.9	5.1	5.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		75			165			960			1071	
Approach Delay, s/veh		15.1			15.8			4.9			5.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.5		9.7		27.5		9.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.0		18.0		23.0		18.0				
Max Q Clear Time (g_c+I1), s		10.9		4.0		8.9		5.2				
Green Ext Time (p_c), s		5.1		0.2		6.1		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			6.1									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
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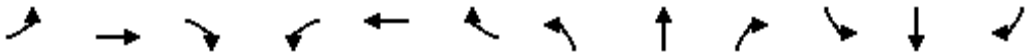


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	155	48	311	123	96	31	907	257	151	750	67
Future Volume (veh/h)	89	155	48	311	123	96	31	907	257	151	750	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	168	52	236	277	104	34	986	279	164	815	73
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	210	65	324	340	288	298	1027	289	219	1644	147
Arrive On Green	0.15	0.15	0.15	0.18	0.18	0.18	0.38	0.38	0.38	0.07	0.50	0.50
Sat Flow, veh/h	1781	1370	424	1781	1870	1585	626	2737	771	1781	3299	295
Grp Volume(v), veh/h	97	0	220	236	277	104	34	639	626	164	439	449
Grp Sat Flow(s),veh/h/ln	1781	0	1794	1781	1870	1585	626	1777	1732	1781	1777	1817
Q Serve(g_s), s	4.0	0.0	9.6	10.1	11.5	4.7	3.1	28.4	28.7	4.4	13.3	13.3
Cycle Q Clear(g_c), s	4.0	0.0	9.6	10.1	11.5	4.7	6.4	28.4	28.7	4.4	13.3	13.3
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.45	1.00		0.16
Lane Grp Cap(c), veh/h	272	0	274	324	340	288	298	667	650	219	886	906
V/C Ratio(X)	0.36	0.00	0.80	0.73	0.81	0.36	0.11	0.96	0.96	0.75	0.50	0.50
Avail Cap(c_a), veh/h	396	0	398	398	418	354	298	667	650	219	886	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	33.1	31.3	31.8	29.0	19.0	24.7	24.8	19.1	13.5	13.5
Incr Delay (d2), s/veh	0.8	0.0	7.3	5.2	9.8	0.8	0.8	26.0	27.6	13.3	2.0	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	1.7	0.0	4.6	4.7	6.0	1.8	0.5	16.0	16.0	2.4	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	40.4	36.4	41.6	29.8	19.8	50.7	52.4	32.4	15.5	15.5
LnGrp LOS	C	A	D	D	D	C	B	D	D	C	B	B
Approach Vol, veh/h		317			617			1299			1052	
Approach Delay, s/veh		37.7			37.6			50.7			18.1	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	34.9		16.9		44.9		19.2				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.5	30.4		18.0		40.4		18.1				
Max Q Clear Time (g_c+I1), s	6.4	30.7		11.6		15.3		13.5				
Green Ext Time (p_c), s	0.0	0.0		0.8		6.2		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		36.6	
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)	8	1	6	83	3	191	8	979	92	254	850	22
Future Volume (veh/h)	8	1	6	83	3	191	8	979	92	254	850	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	9	1	7	90	3	208	9	1064	100	276	924	24
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	145	35	61	302	8	338	449	1813	170	459	2571	67
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.55	0.55	0.55	0.10	0.73	0.73
Sat Flow, veh/h	428	285	499	1498	67	2790	592	3283	308	1781	3539	92
Grp Volume(v), veh/h	17	0	0	93	0	208	9	576	588	276	464	484
Grp Sat Flow(s),veh/h/ln	1213	0	0	1566	0	1395	592	1777	1815	1781	1777	1854
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.2	0.4	12.7	12.7	3.4	5.7	5.7
Cycle Q Clear(g_c), s	2.9	0.0	0.0	2.9	0.0	4.2	0.4	12.7	12.7	3.4	5.7	5.7
Prop In Lane	0.53		0.41	0.97		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	240	0	0	310	0	338	449	981	1002	459	1291	1347
V/C Ratio(X)	0.07	0.00	0.00	0.30	0.00	0.62	0.02	0.59	0.59	0.60	0.36	0.36
Avail Cap(c_a), veh/h	489	0	0	573	0	855	449	981	1002	632	1291	1347
HCM Platoon Ratio	1.00	1.00	1.00	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	23.0	0.0	0.0	24.1	0.0	24.6	6.0	8.8	8.8	7.8	3.0	3.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	1.8	0.1	2.6	2.5	1.3	0.8	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	0.2	0.0	0.0	1.2	0.0	1.4	0.1	4.5	4.6	0.9	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	0.0	24.6	0.0	26.5	6.1	11.3	11.3	9.0	3.8	3.7
LnGrp LOS	C	A	A	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		17			301			1173			1224	
Approach Delay, s/veh		23.2			25.9			11.3			4.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.3	37.1		11.7		47.4		11.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	26.9		18.1		42.9		18.1				
Max Q Clear Time (g_c+I1), s	5.4	14.7		4.9		7.7		6.2				
Green Ext Time (p_c), s	0.4	6.2		0.0		7.3		1.0				

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

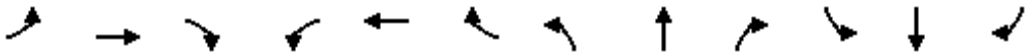
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	10	4	1086	935	8
Future Vol, veh/h	3	10	4	1086	935	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	11	4	1180	1016	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1619	513	1025	0	-	0
Stage 1	1021	-	-	-	-	-
Stage 2	598	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	94	506	673	-	-	-
Stage 1	309	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	93	506	673	-	-	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	512	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	673	-	250	-	-
HCM Lane V/C Ratio	0.006	-	0.057	-	-
HCM Control Delay (s)	10.4	-	20.3	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



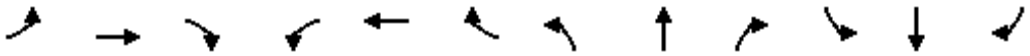
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	37	54	66	28	46	68	1042	76	43	903	13
Future Volume (veh/h)	13	37	54	66	28	46	68	1042	76	43	903	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	40	59	72	30	50	74	1133	83	47	982	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	313	106	156	297	98	163	449	2148	157	374	2295	33
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1319	682	1007	1296	630	1051	565	3357	246	459	3587	51
Grp Volume(v), veh/h	14	0	99	72	0	80	74	599	617	47	486	510
Grp Sat Flow(s),veh/h/ln	1319	0	1689	1296	0	1681	565	1777	1826	459	1777	1861
Q Serve(g_s), s	0.4	0.0	2.3	2.3	0.0	1.8	3.3	8.0	8.0	2.7	5.9	5.9
Cycle Q Clear(g_c), s	2.3	0.0	2.3	4.6	0.0	1.8	9.2	8.0	8.0	10.8	5.9	5.9
Prop In Lane	1.00		0.60	1.00		0.63	1.00		0.13	1.00		0.03
Lane Grp Cap(c), veh/h	313	0	261	297	0	260	449	1137	1168	374	1137	1191
V/C Ratio(X)	0.04	0.00	0.38	0.24	0.00	0.31	0.16	0.53	0.53	0.13	0.43	0.43
Avail Cap(c_a), veh/h	651	0	695	629	0	691	449	1137	1168	374	1137	1191
HCM Platoon Ratio	1.00	1.00	1.00	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	17.4	0.0	16.6	18.7	0.0	16.4	6.2	4.3	4.3	7.2	3.9	3.9
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.4	0.0	0.7	0.8	1.8	1.7	0.7	1.2	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	0.1	0.0	0.8	0.6	0.0	0.7	0.4	1.9	1.9	0.3	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.5	19.1	0.0	17.1	7.0	6.0	6.0	7.9	5.1	5.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		113			152			1290			1043	
Approach Delay, s/veh		17.5			18.0			6.1			5.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.5		11.3		32.5		11.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.0		18.0		28.0		18.0				
Max Q Clear Time (g_c+I1), s		11.2		4.3		12.8		6.6				
Green Ext Time (p_c), s		8.5		0.4		6.4		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			6.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
1: Long Beach Blvd & E San Antonio Dr

01/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	81	27	296	160	89	39	591	142	68	773	117
Future Volume (veh/h)	82	81	27	296	160	89	39	591	142	68	773	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	88	29	248	278	97	42	642	154	74	840	127
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	182	137	45	354	371	315	285	1011	242	331	1501	227
Arrive On Green	0.10	0.10	0.10	0.20	0.20	0.20	0.36	0.36	0.36	0.06	0.48	0.48
Sat Flow, veh/h	1781	1347	444	1781	1870	1585	581	2843	681	1781	3095	468
Grp Volume(v), veh/h	89	0	117	248	278	97	42	401	395	74	482	485
Grp Sat Flow(s),veh/h/ln	1781	0	1790	1781	1870	1585	581	1777	1748	1781	1777	1786
Q Serve(g_s), s	3.0	0.0	3.9	8.2	8.8	3.3	3.5	11.8	11.8	1.5	12.1	12.1
Cycle Q Clear(g_c), s	3.0	0.0	3.9	8.2	8.8	3.3	7.4	11.8	11.8	1.5	12.1	12.1
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.39	1.00		0.26
Lane Grp Cap(c), veh/h	182	0	183	354	371	315	285	632	622	331	862	866
V/C Ratio(X)	0.49	0.00	0.64	0.70	0.75	0.31	0.15	0.63	0.64	0.22	0.56	0.56
Avail Cap(c_a), veh/h	510	0	512	510	535	454	285	632	622	370	862	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	27.1	23.5	23.7	21.5	16.9	16.9	16.9	11.8	11.5	11.5
Incr Delay (d2), s/veh	2.0	0.0	3.7	2.5	3.5	0.5	1.1	4.8	4.9	0.3	2.6	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	1.3	0.0	1.8	3.5	4.0	1.2	0.5	5.2	5.1	0.6	4.7	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	30.8	26.0	27.2	22.1	18.0	21.7	21.8	12.1	14.1	14.1
LnGrp LOS	C	A	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		206			623			838			1041	
Approach Delay, s/veh		29.9			25.9			21.5			13.9	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.1	26.9		10.9		35.0		17.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.0	21.0		18.0		30.5		18.0				
Max Q Clear Time (g_c+I1), s	3.5	13.8		5.9		14.1		10.8				
Green Ext Time (p_c), s	0.0	3.1		0.6		5.9		1.7				

Intersection Summary			
HCM 6th Ctrl Delay		20.3	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	1	67	0	145	2	634	62	145	973	9
Future Volume (veh/h)	0	1	1	67	0	145	2	634	62	145	973	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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1	73	0	158	2	689	67	158	1058	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	92	92	304	0	300	424	1675	163	589	2528	24
Arrive On Green	0.00	0.11	0.11	0.11	0.00	0.11	0.51	0.51	0.51	0.09	0.70	0.70
Sat Flow, veh/h	0	858	858	1401	0	2790	528	3272	318	1781	3607	34
Grp Volume(v), veh/h	0	0	2	73	0	158	2	374	382	158	521	547
Grp Sat Flow(s),veh/h/ln	0	0	1716	1401	0	1395	528	1777	1813	1781	1777	1864
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	2.5	0.1	6.1	6.1	1.6	5.8	5.8
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	2.5	0.1	6.1	6.1	1.6	5.8	5.8
Prop In Lane	0.00		0.50	1.00		1.00	1.00		0.18	1.00		0.02
Lane Grp Cap(c), veh/h	0	0	184	304	0	300	424	910	928	589	1245	1306
V/C Ratio(X)	0.00	0.00	0.01	0.24	0.00	0.53	0.00	0.41	0.41	0.27	0.42	0.42
Avail Cap(c_a), veh/h	0	0	662	697	0	1076	424	910	928	746	1245	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.7	19.8	0.0	19.8	5.6	7.1	7.1	4.1	3.0	3.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	1.4	0.0	1.4	1.3	0.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.8	0.0	2.0	2.0	0.3	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.2	0.0	21.3	5.6	8.5	8.4	4.3	4.0	4.0
LnGrp LOS	A	A	B	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		2			231			758			1226	
Approach Delay, s/veh		18.7			20.9			8.4			4.0	
Approach LOS		B			C			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.9	28.5		9.5		37.4		9.5				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	8.5	19.9		18.1		32.9		18.1				
Max Q Clear Time (g_c+I1), s	3.6	8.1		2.0		7.8		4.5				
Green Ext Time (p_c), s	0.2	3.8		0.0		7.9		0.8				

Intersection Summary		
HCM 6th Ctrl Delay	7.3	
HCM 6th LOS	A	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	5	14	705	1007	8
Future Volume (veh/h)	2	5	14	705	1007	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	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	5	15	766	1095	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	5	11	532	1986	2019	17
Arrive On Green	0.01	0.01	0.56	0.56	0.56	0.56
Sat Flow, veh/h	416	1039	511	3647	3706	30
Grp Volume(v), veh/h	8	0	15	766	539	565
Grp Sat Flow(s),veh/h/ln	1663	0	511	1777	1777	1865
Q Serve(g_s), s	0.1	0.0	0.4	2.5	4.0	4.0
Cycle Q Clear(g_c), s	0.1	0.0	4.4	2.5	4.0	4.0
Prop In Lane	0.25	0.62	1.00			0.02
Lane Grp Cap(c), veh/h	18	0	532	1986	993	1043
V/C Ratio(X)	0.44	0.00	0.03	0.39	0.54	0.54
Avail Cap(c_a), veh/h	1430	0	685	3057	1529	1604
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.3	0.0	4.3	2.6	2.9	2.9
Incr Delay (d2), s/veh	16.1	0.0	0.0	0.1	0.5	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	0.1	0.0	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.4	0.0	4.3	2.7	3.4	3.4
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h	8			781	1104	
Approach Delay, s/veh	26.4			2.7	3.4	
Approach LOS	C			A	A	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	16.2		4.7		16.2
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	6.4		2.1		6.0
Green Ext Time (p_c), s	4.2		0.0		5.7

Intersection Summary		
HCM 6th Ctrl Delay		3.2
HCM 6th LOS		A

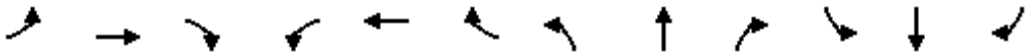
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	29	35	63	51	39	77	733	74	65	913	13
Future Volume (veh/h)	5	29	35	63	51	39	77	733	74	65	913	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	32	38	68	55	42	84	797	80	71	992	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	309	109	130	331	138	105	458	2015	202	506	2217	31
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1298	779	925	1331	984	751	560	3261	327	632	3587	51
Grp Volume(v), veh/h	5	0	70	68	0	97	84	434	443	71	491	515
Grp Sat Flow(s),veh/h/ln	1298	0	1704	1331	0	1735	560	1777	1811	632	1777	1861
Q Serve(g_s), s	0.1	0.0	1.4	1.8	0.0	1.9	3.5	4.6	4.6	2.4	5.4	5.4
Cycle Q Clear(g_c), s	2.0	0.0	1.4	3.2	0.0	1.9	8.9	4.6	4.6	7.0	5.4	5.4
Prop In Lane	1.00		0.54	1.00		0.43	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	309	0	239	331	0	243	458	1098	1119	506	1098	1150
V/C Ratio(X)	0.02	0.00	0.29	0.21	0.00	0.40	0.18	0.40	0.40	0.14	0.45	0.45
Avail Cap(c_a), veh/h	755	0	824	788	0	839	458	1098	1119	506	1098	1150
HCM Platoon Ratio	1.00	1.00	1.00	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	14.3	15.8	0.0	14.6	6.1	3.6	3.6	5.4	3.8	3.8
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	0.0	1.1	0.9	1.1	1.0	0.6	1.3	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	0.0	0.0	0.5	0.5	0.0	0.7	0.4	0.9	1.0	0.3	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	15.0	16.1	0.0	15.6	7.0	4.7	4.6	5.9	5.1	5.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		75			165			961			1077	
Approach Delay, s/veh		15.1			15.8			4.9			5.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	27.5	9.7	27.5	9.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.0	18.0	23.0	18.0
Max Q Clear Time (g_c+I1), s	10.9	4.0	9.0	5.2
Green Ext Time (p_c), s	5.1	0.2	6.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
1: Long Beach Blvd & E San Antonio Dr

01/05/2022



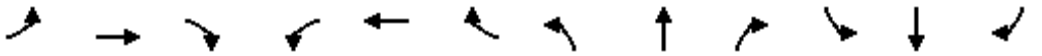
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	155	48	311	123	96	31	907	257	151	751	67
Future Volume (veh/h)	89	155	48	311	123	96	31	907	257	151	751	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	168	52	236	277	104	34	986	279	164	816	73
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	210	65	324	340	288	298	1027	289	219	1645	147
Arrive On Green	0.15	0.15	0.15	0.18	0.18	0.18	0.38	0.38	0.38	0.07	0.50	0.50
Sat Flow, veh/h	1781	1370	424	1781	1870	1585	625	2737	771	1781	3299	295
Grp Volume(v), veh/h	97	0	220	236	277	104	34	639	626	164	439	450
Grp Sat Flow(s),veh/h/ln	1781	0	1794	1781	1870	1585	625	1777	1732	1781	1777	1817
Q Serve(g_s), s	4.0	0.0	9.6	10.1	11.5	4.7	3.1	28.4	28.7	4.4	13.4	13.4
Cycle Q Clear(g_c), s	4.0	0.0	9.6	10.1	11.5	4.7	6.5	28.4	28.7	4.4	13.4	13.4
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.45	1.00		0.16
Lane Grp Cap(c), veh/h	272	0	274	324	340	288	298	667	650	219	886	906
V/C Ratio(X)	0.36	0.00	0.80	0.73	0.81	0.36	0.11	0.96	0.96	0.75	0.50	0.50
Avail Cap(c_a), veh/h	396	0	398	398	418	354	298	667	650	219	886	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	33.1	31.3	31.8	29.0	19.0	24.7	24.8	19.1	13.5	13.5
Incr Delay (d2), s/veh	0.8	0.0	7.3	5.2	9.8	0.8	0.8	26.0	27.6	13.3	2.0	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	1.7	0.0	4.6	4.7	6.0	1.8	0.5	16.0	16.0	2.4	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	40.4	36.4	41.6	29.8	19.8	50.7	52.4	32.4	15.5	15.5
LnGrp LOS	C	A	D	D	D	C	B	D	D	C	B	B
Approach Vol, veh/h		317			617			1299			1053	
Approach Delay, s/veh		37.7			37.6			50.7			18.1	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	34.9		16.9		44.9		19.2				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.5	30.4		18.0		40.4		18.1				
Max Q Clear Time (g_c+I1), s	6.4	30.7		11.6		15.4		13.5				
Green Ext Time (p_c), s	0.0	0.0		0.8		6.3		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		36.5	
HCM 6th LOS		D	

Notes

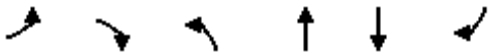
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	1	6	83	3	191	8	979	92	254	851	22
Future Volume (veh/h)	8	1	6	83	3	191	8	979	92	254	851	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	9	1	7	90	3	208	9	1064	100	276	925	24
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	145	35	61	302	8	338	448	1813	170	459	2571	67
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.55	0.55	0.55	0.10	0.73	0.73
Sat Flow, veh/h	428	285	499	1498	67	2790	591	3283	308	1781	3539	92
Grp Volume(v), veh/h	17	0	0	93	0	208	9	576	588	276	464	485
Grp Sat Flow(s),veh/h/ln	1213	0	0	1566	0	1395	591	1777	1815	1781	1777	1854
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.2	0.4	12.7	12.7	3.4	5.7	5.7
Cycle Q Clear(g_c), s	2.9	0.0	0.0	2.9	0.0	4.2	0.4	12.7	12.7	3.4	5.7	5.7
Prop In Lane	0.53		0.41	0.97		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	240	0	0	310	0	338	448	981	1002	459	1291	1347
V/C Ratio(X)	0.07	0.00	0.00	0.30	0.00	0.62	0.02	0.59	0.59	0.60	0.36	0.36
Avail Cap(c_a), veh/h	489	0	0	573	0	855	448	981	1002	632	1291	1347
HCM Platoon Ratio	1.00	1.00	1.00	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	23.0	0.0	0.0	24.1	0.0	24.6	6.0	8.8	8.8	7.8	3.0	3.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	1.8	0.1	2.6	2.5	1.3	0.8	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	0.2	0.0	0.0	1.2	0.0	1.4	0.1	4.5	4.6	0.9	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	0.0	24.6	0.0	26.5	6.1	11.3	11.3	9.0	3.8	3.7
LnGrp LOS	C	A	A	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		17			301			1173			1225	
Approach Delay, s/veh		23.2			25.9			11.3			4.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.3	37.1		11.7		47.4		11.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	26.9		18.1		42.9		18.1				
Max Q Clear Time (g_c+I1), s	5.4	14.7		4.9		7.7		6.2				
Green Ext Time (p_c), s	0.4	6.2		0.0		7.3		1.0				

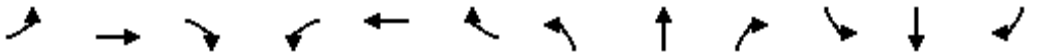
Intersection Summary												
HCM 6th Ctrl Delay			10.1									
HCM 6th LOS			B									



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	10	4	1087	935	8
Future Volume (veh/h)	3	10	4	1087	935	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	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	11	4	1182	1016	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	6	24	548	2160	2194	19
Arrive On Green	0.02	0.02	0.61	0.61	0.61	0.61
Sat Flow, veh/h	328	1201	550	3647	3703	32
Grp Volume(v), veh/h	15	0	4	1182	500	525
Grp Sat Flow(s),veh/h/ln	1638	0	550	1777	1777	1865
Q Serve(g_s), s	0.2	0.0	0.1	4.7	3.7	3.7
Cycle Q Clear(g_c), s	0.2	0.0	3.8	4.7	3.7	3.7
Prop In Lane	0.20	0.73	1.00			0.02
Lane Grp Cap(c), veh/h	32	0	548	2160	1080	1133
V/C Ratio(X)	0.46	0.00	0.01	0.55	0.46	0.46
Avail Cap(c_a), veh/h	1220	0	737	3381	1691	1774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	3.6	2.8	2.6	2.6
Incr Delay (d2), s/veh	9.9	0.0	0.0	0.2	0.3	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	0.1	0.0	0.0	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.6	0.0	3.6	3.0	2.9	2.9
LnGrp LOS	C	A	A	A	A	A
Approach Vol, veh/h	15			1186	1025	
Approach Delay, s/veh	21.6			3.0	2.9	
Approach LOS	C			A	A	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		19.2		5.0		19.2
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		23.0		18.0		23.0
Max Q Clear Time (g_c+I1), s		6.7		2.2		5.7
Green Ext Time (p_c), s		8.0		0.0		6.4

Intersection Summary	
HCM 6th Ctrl Delay	3.1
HCM 6th LOS	A



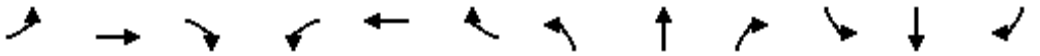
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	37	54	66	28	46	68	1043	76	43	903	13
Future Volume (veh/h)	13	37	54	66	28	46	68	1043	76	43	903	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	40	59	72	30	50	74	1134	83	47	982	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	313	106	156	297	98	163	449	2148	157	374	2295	33
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1319	682	1007	1296	630	1051	565	3357	246	459	3587	51
Grp Volume(v), veh/h	14	0	99	72	0	80	74	600	617	47	486	510
Grp Sat Flow(s),veh/h/ln	1319	0	1689	1296	0	1681	565	1777	1826	459	1777	1861
Q Serve(g_s), s	0.4	0.0	2.3	2.3	0.0	1.8	3.3	8.0	8.1	2.7	5.9	5.9
Cycle Q Clear(g_c), s	2.3	0.0	2.3	4.6	0.0	1.8	9.2	8.0	8.1	10.8	5.9	5.9
Prop In Lane	1.00		0.60	1.00		0.63	1.00		0.13	1.00		0.03
Lane Grp Cap(c), veh/h	313	0	261	297	0	260	449	1137	1168	374	1137	1191
V/C Ratio(X)	0.04	0.00	0.38	0.24	0.00	0.31	0.16	0.53	0.53	0.13	0.43	0.43
Avail Cap(c_a), veh/h	651	0	695	629	0	691	449	1137	1168	374	1137	1191
HCM Platoon Ratio	1.00	1.00	1.00	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	17.4	0.0	16.6	18.7	0.0	16.4	6.2	4.3	4.3	7.2	3.9	3.9
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.4	0.0	0.7	0.8	1.8	1.7	0.7	1.2	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	0.1	0.0	0.8	0.6	0.0	0.7	0.4	1.9	1.9	0.3	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.5	19.1	0.0	17.1	7.0	6.0	6.0	7.9	5.1	5.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		113			152			1291			1043	
Approach Delay, s/veh		17.5			18.0			6.1			5.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.5		11.3		32.5		11.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.0		18.0		28.0		18.0				
Max Q Clear Time (g_c+I1), s		11.2		4.3		12.8		6.6				
Green Ext Time (p_c), s		8.5		0.4		6.4		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			6.9									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
1: Long Beach Blvd & E San Antonio Dr

01/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	81	27	296	160	89	39	589	142	68	780	117
Future Volume (veh/h)	82	81	27	296	160	89	39	589	142	68	780	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	88	29	248	278	97	42	640	154	74	848	127
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	182	137	45	354	371	315	282	1011	243	332	1503	225
Arrive On Green	0.10	0.10	0.10	0.20	0.20	0.20	0.36	0.36	0.36	0.06	0.48	0.48
Sat Flow, veh/h	1781	1347	444	1781	1870	1585	577	2842	683	1781	3099	464
Grp Volume(v), veh/h	89	0	117	248	278	97	42	400	394	74	486	489
Grp Sat Flow(s),veh/h/ln	1781	0	1790	1781	1870	1585	577	1777	1747	1781	1777	1787
Q Serve(g_s), s	3.0	0.0	3.9	8.2	8.8	3.3	3.5	11.8	11.8	1.5	12.2	12.2
Cycle Q Clear(g_c), s	3.0	0.0	3.9	8.2	8.8	3.3	7.6	11.8	11.8	1.5	12.2	12.2
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.39	1.00		0.26
Lane Grp Cap(c), veh/h	182	0	183	354	371	315	282	632	622	332	862	866
V/C Ratio(X)	0.49	0.00	0.64	0.70	0.75	0.31	0.15	0.63	0.63	0.22	0.56	0.56
Avail Cap(c_a), veh/h	510	0	512	510	535	454	282	632	622	371	862	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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	27.1	23.5	23.7	21.5	17.1	16.8	16.9	11.8	11.5	11.5
Incr Delay (d2), s/veh	2.0	0.0	3.7	2.5	3.5	0.5	1.1	4.8	4.9	0.3	2.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	1.8	3.5	4.0	1.2	0.5	5.2	5.1	0.6	4.7	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	30.8	26.0	27.2	22.1	18.2	21.6	21.7	12.1	14.2	14.1
LnGrp LOS	C	A	C	C	C	C	B	C	C	B	B	B
Approach Vol, veh/h		206			623			836			1049	
Approach Delay, s/veh		29.9			25.9			21.5			14.0	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.1	26.9		10.9		35.0		17.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.0	21.0		18.0		30.5		18.0				
Max Q Clear Time (g_c+I1), s	3.5	13.8		5.9		14.2		10.8				
Green Ext Time (p_c), s	0.0	3.1		0.6		5.9		1.7				

Intersection Summary			
HCM 6th Ctrl Delay		20.3	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	1	67	0	145	2	632	62	145	980	9
Future Volume (veh/h)	0	1	1	67	0	145	2	632	62	145	980	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		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1	1	73	0	158	2	687	67	158	1065	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	92	92	304	0	300	422	1675	163	590	2528	24
Arrive On Green	0.00	0.11	0.11	0.11	0.00	0.11	0.51	0.51	0.51	0.09	0.70	0.70
Sat Flow, veh/h	0	858	858	1401	0	2790	525	3271	319	1781	3607	34
Grp Volume(v), veh/h	0	0	2	73	0	158	2	373	381	158	525	550
Grp Sat Flow(s),veh/h/ln	0	0	1716	1401	0	1395	525	1777	1813	1781	1777	1864
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	2.5	0.1	6.1	6.1	1.6	5.9	5.9
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	2.5	0.1	6.1	6.1	1.6	5.9	5.9
Prop In Lane	0.00		0.50	1.00		1.00	1.00		0.18	1.00		0.02
Lane Grp Cap(c), veh/h	0	0	184	304	0	300	422	910	928	590	1245	1306
V/C Ratio(X)	0.00	0.00	0.01	0.24	0.00	0.53	0.00	0.41	0.41	0.27	0.42	0.42
Avail Cap(c_a), veh/h	0	0	662	697	0	1076	422	910	928	747	1245	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	18.7	19.8	0.0	19.8	5.6	7.1	7.1	4.1	3.0	3.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	1.4	0.0	1.4	1.3	0.2	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.7	0.0	0.8	0.0	2.0	2.0	0.3	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.7	20.2	0.0	21.3	5.6	8.4	8.4	4.3	4.0	4.0
LnGrp LOS	A	A	B	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		2			231			756			1233	
Approach Delay, s/veh		18.7			20.9			8.4			4.0	
Approach LOS		B			C			A			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.9	28.5		9.5		37.4		9.5				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	8.5	19.9		18.1		32.9		18.1				
Max Q Clear Time (g_c+I1), s	3.6	8.1		2.0		7.9		4.5				
Green Ext Time (p_c), s	0.2	3.7		0.0		7.9		0.8				

Intersection Summary		
HCM 6th Ctrl Delay	7.3	
HCM 6th LOS	A	

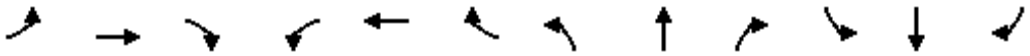
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	5	14	717	1007	8
Future Vol, veh/h	2	5	14	717	1007	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	5	15	779	1095	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1520	552	1104	0	-	0
Stage 1	1100	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	109	477	628	-	-	-
Stage 1	280	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	106	477	628	-	-	-
Mov Cap-2 Maneuver	106	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	631	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.6	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	628	-	239	-	-
HCM Lane V/C Ratio	0.024	-	0.032	-	-
HCM Control Delay (s)	10.9	-	20.6	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



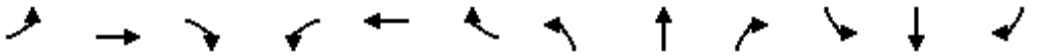
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	29	35	63	51	39	77	747	74	63	911	13
Future Volume (veh/h)	5	29	35	63	51	39	77	747	74	63	911	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	32	38	68	55	42	84	812	80	68	990	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	309	109	130	331	138	105	459	2019	199	500	2217	31
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	1298	779	925	1331	984	751	561	3267	322	624	3587	51
Grp Volume(v), veh/h	5	0	70	68	0	97	84	442	450	68	490	514
Grp Sat Flow(s),veh/h/ln	1298	0	1704	1331	0	1735	561	1777	1812	624	1777	1861
Q Serve(g_s), s	0.1	0.0	1.4	1.8	0.0	1.9	3.5	4.7	4.7	2.3	5.4	5.4
Cycle Q Clear(g_c), s	2.0	0.0	1.4	3.2	0.0	1.9	8.9	4.7	4.7	7.0	5.4	5.4
Prop In Lane	1.00		0.54	1.00		0.43	1.00		0.18	1.00		0.03
Lane Grp Cap(c), veh/h	309	0	239	331	0	243	459	1098	1120	500	1098	1150
V/C Ratio(X)	0.02	0.00	0.29	0.21	0.00	0.40	0.18	0.40	0.40	0.14	0.45	0.45
Avail Cap(c_a), veh/h	755	0	824	788	0	839	459	1098	1120	500	1098	1150
HCM Platoon Ratio	1.00	1.00	1.00	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	14.3	15.8	0.0	14.6	6.1	3.6	3.6	5.4	3.8	3.8
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	0.0	1.1	0.9	1.1	1.1	0.6	1.3	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	0.0	0.0	0.5	0.5	0.0	0.7	0.4	1.0	1.0	0.3	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	0.0	15.0	16.1	0.0	15.6	7.0	4.7	4.7	6.0	5.1	5.0
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		75			165			976			1072	
Approach Delay, s/veh		15.1			15.8			4.9			5.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		27.5		9.7		27.5		9.7				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		23.0		18.0		23.0		18.0				
Max Q Clear Time (g_c+I1), s		10.9		4.0		9.0		5.2				
Green Ext Time (p_c), s		5.2		0.2		6.1		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			6.1									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
1: Long Beach Blvd & E San Antonio Dr

01/05/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	155	48	311	123	96	31	914	257	151	751	67
Future Volume (veh/h)	89	155	48	311	123	96	31	914	257	151	751	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	168	52	236	277	104	34	993	279	164	816	73
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	210	65	324	340	288	298	1029	288	218	1645	147
Arrive On Green	0.15	0.15	0.15	0.18	0.18	0.18	0.38	0.38	0.38	0.07	0.50	0.50
Sat Flow, veh/h	1781	1370	424	1781	1870	1585	625	2742	767	1781	3299	295
Grp Volume(v), veh/h	97	0	220	236	277	104	34	642	630	164	439	450
Grp Sat Flow(s),veh/h/ln	1781	0	1794	1781	1870	1585	625	1777	1732	1781	1777	1817
Q Serve(g_s), s	4.0	0.0	9.6	10.1	11.5	4.7	3.1	28.6	29.0	4.4	13.4	13.4
Cycle Q Clear(g_c), s	4.0	0.0	9.6	10.1	11.5	4.7	6.5	28.6	29.0	4.4	13.4	13.4
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.44	1.00		0.16
Lane Grp Cap(c), veh/h	272	0	274	324	340	288	298	667	650	218	886	906
V/C Ratio(X)	0.36	0.00	0.80	0.73	0.81	0.36	0.11	0.96	0.97	0.75	0.50	0.50
Avail Cap(c_a), veh/h	396	0	398	398	418	354	298	667	650	218	886	906
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	33.1	31.3	31.8	29.0	19.0	24.8	24.9	19.1	13.5	13.5
Incr Delay (d2), s/veh	0.8	0.0	7.3	5.2	9.8	0.8	0.8	26.9	28.6	13.8	2.0	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	1.7	0.0	4.6	4.7	6.0	1.8	0.5	16.2	16.2	2.5	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	0.0	40.4	36.4	41.6	29.8	19.8	51.6	53.5	32.9	15.5	15.5
LnGrp LOS	C	A	D	D	D	C	B	D	D	C	B	B
Approach Vol, veh/h		317			617			1306			1053	
Approach Delay, s/veh		37.7			37.6			51.7			18.2	
Approach LOS		D			D			D			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	34.9		16.9		44.9		19.2				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.5	30.4		18.0		40.4		18.1				
Max Q Clear Time (g_c+I1), s	6.4	31.0		11.6		15.4		13.5				
Green Ext Time (p_c), s	0.0	0.0		0.8		6.3		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		37.0	
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)	8	1	6	83	3	191	8	986	92	254	851	22
Future Volume (veh/h)	8	1	6	83	3	191	8	986	92	254	851	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	9	1	7	90	3	208	9	1072	100	276	925	24
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	145	35	61	302	8	338	449	1817	169	456	2571	67
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.55	0.55	0.55	0.10	0.73	0.73
Sat Flow, veh/h	428	285	499	1498	67	2790	591	3286	306	1781	3539	92
Grp Volume(v), veh/h	17	0	0	93	0	208	9	579	593	276	464	485
Grp Sat Flow(s),veh/h/ln	1213	0	0	1566	0	1395	591	1777	1815	1781	1777	1854
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.2	0.4	12.8	12.8	3.4	5.7	5.7
Cycle Q Clear(g_c), s	2.9	0.0	0.0	2.9	0.0	4.2	0.4	12.8	12.8	3.4	5.7	5.7
Prop In Lane	0.53		0.41	0.97		1.00	1.00		0.17	1.00		0.05
Lane Grp Cap(c), veh/h	240	0	0	310	0	338	449	983	1004	456	1291	1347
V/C Ratio(X)	0.07	0.00	0.00	0.30	0.00	0.62	0.02	0.59	0.59	0.61	0.36	0.36
Avail Cap(c_a), veh/h	489	0	0	573	0	855	449	983	1004	600	1291	1347
HCM Platoon Ratio	1.00	1.00	1.00	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	23.0	0.0	0.0	24.1	0.0	24.6	6.0	8.8	8.8	7.9	3.0	3.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.5	0.0	1.8	0.1	2.6	2.5	1.3	0.8	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	0.2	0.0	0.0	1.2	0.0	1.4	0.1	4.5	4.6	1.0	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	0.0	24.6	0.0	26.5	6.1	11.3	11.3	9.2	3.8	3.7
LnGrp LOS	C	A	A	C	A	C	A	B	B	A	A	A
Approach Vol, veh/h		17			301			1181			1225	
Approach Delay, s/veh		23.2			25.9			11.3			5.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.2	37.2		11.7		47.4		11.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	10.5	27.9		18.1		42.9		18.1				
Max Q Clear Time (g_c+I1), s	5.4	14.8		4.9		7.7		6.2				
Green Ext Time (p_c), s	0.4	6.5		0.0		7.3		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		10.1
HCM 6th LOS		B

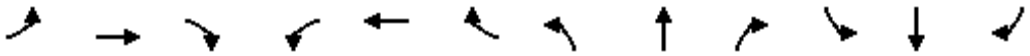
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	25	4	1087	935	8
Future Vol, veh/h	10	25	4	1087	935	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	27	4	1182	1016	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1620	513	1025	0	-	0
Stage 1	1021	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	94	506	673	-	-	-
Stage 1	309	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	93	506	673	-	-	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	307	-	-	-	-	-
Stage 2	511	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	673	-	223	-	-
HCM Lane V/C Ratio	0.006	-	0.171	-	-
HCM Control Delay (s)	10.4	-	24.4	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	37	54	66	28	46	68	1043	76	43	918	13
Future Volume (veh/h)	13	37	54	66	28	46	68	1043	76	43	918	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			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	40	59	72	30	50	74	1134	83	47	998	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	313	106	156	297	98	163	443	2148	157	374	2295	32
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	1319	682	1007	1296	630	1051	557	3357	246	459	3588	50
Grp Volume(v), veh/h	14	0	99	72	0	80	74	600	617	47	494	518
Grp Sat Flow(s),veh/h/ln	1319	0	1689	1296	0	1681	557	1777	1826	459	1777	1861
Q Serve(g_s), s	0.4	0.0	2.3	2.3	0.0	1.8	3.3	8.0	8.1	2.7	6.1	6.1
Cycle Q Clear(g_c), s	2.3	0.0	2.3	4.6	0.0	1.8	9.4	8.0	8.1	10.8	6.1	6.1
Prop In Lane	1.00		0.60	1.00		0.63	1.00		0.13	1.00		0.03
Lane Grp Cap(c), veh/h	313	0	261	297	0	260	443	1137	1168	374	1137	1191
V/C Ratio(X)	0.04	0.00	0.38	0.24	0.00	0.31	0.17	0.53	0.53	0.13	0.43	0.43
Avail Cap(c_a), veh/h	651	0	695	629	0	691	443	1137	1168	374	1137	1191
HCM Platoon Ratio	1.00	1.00	1.00	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	17.4	0.0	16.6	18.7	0.0	16.4	6.3	4.3	4.3	7.2	3.9	3.9
Incr Delay (d2), s/veh	0.1	0.0	0.9	0.4	0.0	0.7	0.8	1.8	1.7	0.7	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.8	0.6	0.0	0.7	0.4	1.9	1.9	0.3	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.5	19.1	0.0	17.1	7.1	6.0	6.0	7.9	5.1	5.1
LnGrp LOS	B	A	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		113			152			1291			1059	
Approach Delay, s/veh		17.5			18.0			6.1			5.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.5		11.3		32.5		11.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		28.0		18.0		28.0		18.0				
Max Q Clear Time (g_c+I1), s		11.4		4.3		12.8		6.6				
Green Ext Time (p_c), s		8.4		0.4		6.5		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			6.9									
HCM 6th LOS			A									