

Appendix G2

Project Access Safety and Circulation Evaluation

Table 1: Existing (2021) and Future (2027) With Project Intersection Operations

Intersection	Control	Peak Hour	Existing (2021)		2027 with Project	
			Delay (sec/veh) ¹	LOS ^{2,3}	Delay (sec/veh) ^{1,5}	LOS ^{2,3}
1. Front St/Knoll Dr	Signalized	Th PM	3.4	A	41.7	<u>D</u>
		Su PM	3.3	A	47.4	<u>D</u>
2. Front St/WB SR-47 On-Ramp ³	Uncontrolled	Th PM	6.0	A	DNE*	DNE
		Su PM	6.8	A	DNE	DNE
3. Front St/Harbor Blvd/EB SR-47 Ramps/Swinford St	Signalized	Th PM	21.5	C	33.2	C
		Su PM	20.5	C	38.5	<u>D</u>
4. Harbor Blvd/1 st St	Signalized	Th PM	9.9	A	25.0	C
		Su PM	8.8	A	21.5	C
5. Harbor Blvd/5 th St	Signalized	Th PM	9.7	A	12.3	B
		Su PM	8.8	A	11.3	B
6. Harbor Blvd/7 th St	Signalized	Th PM	9.4	A	12.5	B
		Su PM	8.6	A	10.6	B
7. Harbor Blvd/Sampson Wy/Miner St	Signalized	Th PM	9.9	A	11.4	B
		Su PM	10.9	B	13.1	B
8. Sampson Wy/North Driveway	AWSC	Th PM	7.1	A	13.3	B
		Su PM	7.8	A	9.6	A
9. Sampson Wy/Middle Driveway	SSSC	Th PM	8.9	A	9.7	A
		Su PM	10.5	B	21.1	C
10. Sampson Wy/South Driveway	AWSC	Th PM	7.1	A	7.5	A
		Su PM	7.8	A	8.0	A
11. Sampson Wy/22 nd St	AWSC	Th PM	7.6	A	8.2	A
		Su PM	7.8	A	8.4	A
12. Miner St/22 nd St	Signalized	Th PM	21.9	C	35.3	<u>D</u>
		Su PM	40.4	<u>D</u>	33.3	C
13. Via Cabrillo-Marina/22 nd St ⁴	Signalized	Th PM	8.1	A	7.3	A
		Su PM	9.4	A	8.8	A

Source: Fehr & Peers, 2023, 2024.

AWSC indicates All-way stop-controlled intersection.

TWSC indicates Two-way stop-controlled intersection.

Underlined text indicates a LOS of D, E, or F.

*DNE indicates intersection does not exist in given scenario

¹ Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized and AWSC intersections. The vehicular delay for the worst movement is reported for the TWSC intersection.

² LOS calculations performed using the *Highway Capacity Manual* 6th Edition (HCM 6) method.

³ LOS calculations performed using the *Highway Capacity Manual* 2000 Edition method due to intersection control type.

⁴ LOS calculations performed using the *Highway Capacity Manual* 2000 Edition method due to signal phasing

⁵ Cycle lengths and splits were optimized for 2027 scenarios to represent the option for optimized time of day functions for Amphitheater event days or manual traffic control. This may result in lower average delay in 2027 compared to existing.

Existing Thursday PM

West Harbor Amphitheater
1: Front St & Knoll Dr/WBCT Gate 2

Existing Thursday PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	2	28	0	7	0	162	118	33	205	0
Future Volume (veh/h)	3	0	2	28	0	7	0	162	118	33	205	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	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	1900	1900	1900	1559	0	1559	0	1307	1307	1737	1737	0
Adj Flow Rate, veh/h	3	0	2	29	0	1	0	169	67	34	214	0
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, %	0	0	0	23	0	23	0	40	40	11	11	0
Cap, veh/h	22	0	20	0	0	0	0	843	320	797	1590	0
Arrive On Green	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.48	0.48	0.48	0.48	0.00
Sat Flow, veh/h	1810	0	1610		0		0	1814	664	1063	3387	0
Grp Volume(v), veh/h	3	0	2		0.0		0	118	118	34	214	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1242	1171	1063	1650	0
Q Serve(g_s), s	0.0	0.0	0.0				0.0	1.1	1.2	0.4	0.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0				0.0	1.1	1.2	1.6	0.7	0.0
Prop In Lane	1.00		1.00				0.00		0.57	1.00		0.00
Lane Grp Cap(c), veh/h	22	0	20				0	598	564	797	1590	0
V/C Ratio(X)	0.13	0.00	0.10				0.00	0.20	0.21	0.04	0.13	0.00
Avail Cap(c_a), veh/h	2180	0	1939				0	2094	1975	2077	5565	0
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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.1	0.0	10.1				0.0	3.1	3.1	3.6	3.0	0.0
Incr Delay (d2), s/veh	5.7	0.0	4.7				0.0	0.3	0.4	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(95%),veh/ln	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.9	0.0	14.8				0.0	3.4	3.5	3.6	3.1	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	A
Approach Vol, veh/h		5						236			248	
Approach Delay, s/veh		15.4						3.4			3.2	
Approach LOS		B						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		15.5				15.5		5.3				
Change Period (Y+Rc), s		* 5.5				* 5.5		5.0				
Max Green Setting (Gmax), s		* 35				* 35		25.0				
Max Q Clear Time (g_c+I1), s		3.6				3.2		2.0				
Green Ext Time (p_c), s		3.4				2.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			3.4									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

West Harbor Amphitheater
2: Front St & SR47 WB On Ramp






















Existing Thursday PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	430	280	223	12
Future Volume (Veh/h)	0	0	430	280	223	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	0	0	462	301	240	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				523	633	
pX, platoon unblocked						
vC, conflicting volume	1321	126	253			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1321	126	253			
tC, single (s)	6.8	6.9	4.5			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.4			
p0 queue free %	100	100	61			
cM capacity (veh/h)	92	907	1194			
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	
Volume Total	462	150	150	160	93	
Volume Left	462	0	0	0	0	
Volume Right	0	0	0	0	13	
cSH	1194	1700	1700	1700	1700	
Volume to Capacity	0.39	0.09	0.09	0.09	0.05	
Queue Length 95th (ft)	46	0	0	0	0	
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	6.0			0.0		
Approach LOS						
Intersection Summary						
Average Delay	4.5					
Intersection Capacity Utilization	37.0%			ICU Level of Service	A	
Analysis Period (min)	15					

West Harbor Amphitheater
3: Harbor Blvd/Front St & Swinford St

Existing Thursday PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	14	942	14	36	40	339	554	12	7	160	56
Future Volume (veh/h)	116	14	942	14	36	40	339	554	12	7	160	56
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		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	1707	1707	1707	1900	1900	1900	1885	1885	1885	1796	1796	1796
Adj Flow Rate, veh/h	88	0	381	15	39	5	365	596	12	8	172	9
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, %	13	13	13	0	0	0	1	1	1	7	7	7
Cap, veh/h	267	0	907	108	296	39	533	954	19	28	550	240
Arrive On Green	0.16	0.00	0.16	0.12	0.12	0.12	0.15	0.31	0.31	0.02	0.16	0.16
Sat Flow, veh/h	1626	0	2829	900	2465	327	3483	3057	62	1711	3413	1488
Grp Volume(v), veh/h	88	0	381	31	0	28	365	242	366	8	172	9
Grp Sat Flow(s),veh/h/ln	1626	0	1415	1855	0	1838	1742	1244	1874	1711	1706	1488
Q Serve(g_s), s	2.9	0.0	0.0	0.9	0.0	0.8	6.0	10.1	10.2	0.3	2.7	0.3
Cycle Q Clear(g_c), s	2.9	0.0	0.0	0.9	0.0	0.8	6.0	10.1	10.2	0.3	2.7	0.3
Prop In Lane	1.00		1.00	0.49		0.18	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	267	0	907	223	0	221	533	388	585	28	550	240
V/C Ratio(X)	0.33	0.00	0.42	0.14	0.00	0.13	0.69	0.62	0.62	0.28	0.31	0.04
Avail Cap(c_a), veh/h	934	0	2067	913	0	904	2000	612	922	421	1960	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	0.0	16.4	24.0	0.0	24.0	24.4	17.9	17.9	29.6	22.6	21.6
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.3	0.0	0.3	1.6	3.1	2.0	5.3	0.9	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(95%),veh/ln	2.0	0.0	3.6	0.7	0.0	0.7	4.3	5.2	7.6	0.3	1.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	16.9	24.3	0.0	24.2	26.0	21.0	20.0	34.9	23.5	21.8
LnGrp LOS	C	A	B	C	A	C	C	C	B	C	C	C
Approach Vol, veh/h		469			59			973			189	
Approach Delay, s/veh		18.2			24.3			22.5			23.9	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	25.2		16.1	15.5	16.0		13.3				
Change Period (Y+Rc), s	* 5.3	6.2		* 6.1	6.2	6.2		6.0				
Max Green Setting (Gmax), s	* 15	30.0		* 35	35.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	2.3	12.2		4.9	8.0	4.7		2.9				
Green Ext Time (p_c), s	0.0	5.6		3.6	1.3	2.3		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
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.												























West Harbor Amphitheater
4: Harbor Blvd & 1st St

Existing Thursday PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	0	16	13	3	23	15	749	8	2	964	29
Future Volume (veh/h)	65	0	16	13	3	23	15	749	8	2	964	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		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	1826	1826	1826	1900	1900	1900	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	75	0	2	15	3	3	17	861	9	2	1108	20
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, %	5	5	5	0	0	0	1	1	1	0	0	0
Cap, veh/h	179	0	157	82	16	86	343	2252	24	8	2415	1061
Arrive On Green	0.10	0.00	0.10	0.05	0.05	0.05	0.62	0.62	0.62	0.00	0.67	0.67
Sat Flow, veh/h	1739	0	1531	1520	304	1597	503	3631	38	1810	3610	1586
Grp Volume(v), veh/h	75	0	2	18	0	3	17	425	445	2	1108	20
Grp Sat Flow(s),veh/h/ln	1739	0	1531	1824	0	1597	503	1791	1878	1810	1805	1586
Q Serve(g_s), s	3.6	0.0	0.1	0.8	0.0	0.2	1.5	10.6	10.6	0.1	13.2	0.4
Cycle Q Clear(g_c), s	3.6	0.0	0.1	0.8	0.0	0.2	10.3	10.6	10.6	0.1	13.2	0.4
Prop In Lane	1.00		1.00	0.83		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	179	0	157	98	0	86	343	1111	1165	8	2415	1061
V/C Ratio(X)	0.42	0.00	0.01	0.18	0.00	0.03	0.05	0.38	0.38	0.25	0.46	0.02
Avail Cap(c_a), veh/h	456	0	401	499	0	437	343	1111	1165	241	2415	1061
HCM Platoon Ratio	1.00	1.00	1.00	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	0.96	0.96	0.96	0.84	0.84	0.84
Uniform Delay (d), s/veh	37.8	0.0	36.3	40.7	0.0	40.4	10.6	8.5	8.5	44.7	7.1	5.0
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.9	0.0	0.2	0.3	1.0	0.9	13.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	0.1	0.7	0.0	0.1	0.3	6.9	7.2	0.1	7.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	0.0	36.3	41.6	0.0	40.5	10.9	9.5	9.4	58.4	7.6	5.0
LnGrp LOS	D	A	D	D	A	D	B	A	A	E	A	A
Approach Vol, veh/h		77			21			887			1130	
Approach Delay, s/veh		39.3			41.4			9.5			7.7	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.1		14.7	4.4	60.7		10.2				
Change Period (Y+Rc), s		4.9		* 5.4	4.0	4.9		5.4				
Max Green Setting (Gmax), s		26.1		* 24	12.0	10.1		24.6				
Max Q Clear Time (g_c+I1), s		15.2		5.6	2.1	12.6		2.8				
Green Ext Time (p_c), s		7.8		0.1	0.0	0.0		0.0				
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.												

West Harbor Amphitheater
5: Harbor Blvd & 5th St

Existing Thursday PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	1	29	1	2	0	20	605	1	0	882	112
Future Volume (veh/h)	126	1	29	1	2	0	20	605	1	0	882	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	0.98		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	1900	1900	1900	1900	1900	0	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	137	1	5	1	2	0	22	658	1	0	959	77
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, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	286	361	305	208	65	0	307	1677	744	0	1677	744
Arrive On Green	0.16	0.19	0.19	0.00	0.03	0.00	0.47	0.47	0.47	0.00	0.47	0.47
Sat Flow, veh/h	1810	1900	1606	1810	1900	0	548	3582	1589	0	3676	1589
Grp Volume(v), veh/h	137	1	5	1	2	0	22	658	1	0	959	77
Grp Sat Flow(s),veh/h/ln	1810	1900	1606	1810	1900	0	548	1791	1589	0	1791	1589
Q Serve(g_s), s	3.2	0.0	0.1	0.0	0.0	0.0	1.4	5.5	0.0	0.0	8.9	1.2
Cycle Q Clear(g_c), s	3.2	0.0	0.1	0.0	0.0	0.0	10.3	5.5	0.0	0.0	8.9	1.2
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	286	361	305	208	65	0	307	1677	744	0	1677	744
V/C Ratio(X)	0.48	0.00	0.02	0.00	0.03	0.00	0.07	0.39	0.00	0.00	0.57	0.10
Avail Cap(c_a), veh/h	788	827	699	992	827	0	408	2339	1038	0	2339	1038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	15.1	15.1	21.4	21.4	0.0	12.6	8.0	6.5	0.0	8.9	6.8
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.0	0.2	0.0	0.3	0.4	0.0	0.0	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	0.0	0.1	0.0	0.0	0.0	0.3	2.8	0.0	0.0	4.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	15.1	15.1	21.4	21.6	0.0	12.9	8.4	6.5	0.0	9.4	6.9
LnGrp LOS	B	B	B	C	C	A	B	A	A	A	A	A
Approach Vol, veh/h		143			3			681			1036	
Approach Delay, s/veh		18.7			21.6			8.5			9.3	
Approach LOS		B			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		26.7	11.5	7.8		26.7	4.3	14.9				
Change Period (Y+Rc), s		* 5.2	* 4.2	* 6.2		* 5.2	* 4.2	* 6.2				
Max Green Setting (Gmax), s		* 30	* 20	* 20		* 30	* 20	* 20				
Max Q Clear Time (g_c+I1), s		10.9	5.2	2.0		12.3	2.0	2.1				
Green Ext Time (p_c), s		10.5	0.3	0.0		8.1	0.0	0.0				
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.												

West Harbor Amphitheater
6: Harbor Blvd & 7th St

Existing Thursday PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	129	39	39	477	653	216
Future Volume (veh/h)	129	39	39	477	653	216
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	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1885	1885
Adj Flow Rate, veh/h	147	10	44	542	742	127
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	1	1
Cap, veh/h	578	398	452	2118	1407	608
Arrive On Green	0.17	0.17	0.08	0.60	0.39	0.39
Sat Flow, veh/h	3456	1585	1781	3647	3676	1548
Grp Volume(v), veh/h	147	10	44	542	742	127
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777	1791	1548
Q Serve(g_s), s	1.7	0.2	0.6	3.4	7.4	2.5
Cycle Q Clear(g_c), s	1.7	0.2	0.6	3.4	7.4	2.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	578	398	452	2118	1407	608
V/C Ratio(X)	0.25	0.03	0.10	0.26	0.53	0.21
Avail Cap(c_a), veh/h	1475	809	1063	2275	2293	991
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	13.2	6.6	4.5	10.9	9.4
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.1	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.4	0.3	1.3	4.2	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.2	13.3	6.7	4.6	11.4	9.7
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	157			586	869	
Approach Delay, s/veh	17.0			4.8	11.2	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.5	23.9		13.4		33.4
Change Period (Y+Rc), s	5.6	* 5.5		5.6		* 5.5
Max Green Setting (Gmax), s	20.0	* 30		20.0		* 30
Max Q Clear Time (g_c+I1), s	2.6	9.4		3.7		5.4
Green Ext Time (p_c), s	0.1	8.7		0.4		5.7

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.

West Harbor Amphitheater
7: Sampson Wy/Harbor Blvd & Miner St

Existing Thursday PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↖	↖	↕↕	↕↕	↖
Traffic Volume (veh/h)	389	3	14	137	124	562
Future Volume (veh/h)	389	3	14	137	124	562
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	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	437	1	16	154	139	405
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	885	458	471	1691	1086	875
Arrive On Green	0.25	0.25	0.03	0.47	0.30	0.30
Sat Flow, veh/h	3510	1610	1810	3705	3705	1559
Grp Volume(v), veh/h	437	1	16	154	139	405
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1805	1805	1559
Q Serve(g_s), s	4.4	0.0	0.2	1.0	1.2	6.5
Cycle Q Clear(g_c), s	4.4	0.0	0.2	1.0	1.2	6.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	885	458	471	1691	1086	875
V/C Ratio(X)	0.49	0.00	0.03	0.09	0.13	0.46
Avail Cap(c_a), veh/h	2539	1217	1284	2611	2611	1533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	10.6	8.1	6.1	10.5	5.6
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.0	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	0.0	0.1	0.5	0.7	5.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.4	10.6	8.2	6.2	10.6	6.2
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	438			170	544	
Approach Delay, s/veh	14.4			6.3	7.3	
Approach LOS	B			A	A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.9	18.5			25.4	16.1
Change Period (Y+Rc), s	5.6	* 6			* 6	5.6
Max Green Setting (Gmax), s	20.0	* 30			* 30	30.0
Max Q Clear Time (g_c+I1), s	2.2	8.5			3.0	6.4
Green Ext Time (p_c), s	0.0	3.7			1.4	4.1

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.

Intersection

Intersection Delay, s/veh 7.1

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	0	0	0	3	0	10	0	150	0	56	57	0
Future Vol, veh/h	0	0	0	3	0	10	0	150	0	56	57	0
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	11	0	169	0	63	64	0
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	0	7.4	6.9	7.4
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	23%	100%	0%	0%
Vol Thru, %	100%	100%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	0%	0%	0%	77%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	75	75	0	13	56	29	29
LT Vol	0	0	0	0	3	56	0	0
Through Vol	0	75	75	0	0	0	29	29
RT Vol	0	0	0	0	10	0	0	0
Lane Flow Rate	0	84	84	0	15	63	32	32
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0	0.107	0.068	0	0.019	0.089	0.041	0.026
Departure Headway (Hd)	4.585	4.585	2.884	5.098	4.659	5.11	4.609	2.908
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	780	1234	0	773	702	777	1227
Service Time	2.322	2.322	0.621	2.799	2.359	2.837	2.337	0.634
HCM Lane V/C Ratio	0	0.108	0.068	0	0.019	0.09	0.041	0.026
HCM Control Delay	7.3	7.9	5.8	7.8	7.4	8.3	7.5	5.7
HCM Lane LOS	N	A	A	N	A	A	A	A
HCM 95th-tile Q	0	0.4	0.2	0	0.1	0.3	0.1	0.1

Intersection						
Int Delay, s/veh	4.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	99	56	5	18	44
Future Vol, veh/h	0	99	56	5	18	44
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	160	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	111	63	6	20	49

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	36	0	0	70
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	2.2
Pot Cap-1 Maneuver	0	1035	-	-	1544
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1034	-	-	1543
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1034	1543
HCM Lane V/C Ratio	-	-	0.108	0.013
HCM Control Delay (s)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	10	0	18	0	41	13	2	49	0
Future Vol, veh/h	0	0	0	10	0	18	0	41	13	2	49	0
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	11	0	20	0	46	15	2	55	0
Number of Lanes	0	1	0	0	1	0	0	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	1
HCM Control Delay	0	7.4	7.4	6.6
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	36%	100%	0%	0%
Vol Thru, %	100%	51%	100%	0%	0%	100%	100%
Vol Right, %	0%	49%	0%	64%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	27	0	28	2	25	25
LT Vol	0	0	0	10	2	0	0
Through Vol	27	14	0	0	0	25	25
RT Vol	0	13	0	18	0	0	0
Lane Flow Rate	31	30	0	31	2	28	28
Geometry Grp	8	8	7	7	7	7	7
Degree of Util (X)	0.04	0.036	0	0.039	0.003	0.035	0.022
Departure Headway (Hd)	4.636	4.295	4.707	4.418	5.086	4.586	2.884
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	770	831	0	805	703	780	1234
Service Time	2.376	2.034	2.472	2.175	2.821	2.321	0.619
HCM Lane V/C Ratio	0.04	0.036	0	0.039	0.003	0.036	0.023
HCM Control Delay	7.6	7.2	7.5	7.4	7.8	7.5	5.7
HCM Lane LOS	A	A	N	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0	0.1	0	0.1	0.1

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗		↕			↕			↑	↗
Traffic Vol, veh/h	25	1	16	0	2	2	22	20	0	0	21	32
Future Vol, veh/h	25	1	16	0	2	2	22	20	0	0	21	32
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	29	1	19	0	2	2	26	23	0	0	24	37
Number of Lanes	1	1	1	0	2	0	0	2	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	7.7	7.3	7.9	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	77%	0%	100%	0%	0%	0%	0%	0%	0%
Vol Thru, %	23%	100%	0%	100%	0%	100%	25%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	75%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	13	25	1	16	1	3	21	32
LT Vol	22	0	25	0	0	0	0	0	0
Through Vol	7	13	0	1	0	1	1	21	0
RT Vol	0	0	0	0	16	0	2	0	32
Lane Flow Rate	33	16	29	1	19	2	3	24	37
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.047	0.02	0.042	0.002	0.021	0.002	0.004	0.032	0.041
Departure Headway (Hd)	5.066	4.682	5.215	4.714	4.013	4.893	4.367	4.665	3.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	701	757	679	750	878	736	824	759	890
Service Time	2.839	2.455	3.002	2.501	1.8	2.593	2.067	2.447	1.746
HCM Lane V/C Ratio	0.047	0.021	0.043	0.001	0.022	0.003	0.004	0.032	0.042
HCM Control Delay	8.1	7.6	8.2	7.5	6.9	7.6	7.1	7.6	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.1	0	0.1	0	0	0.1	0.1

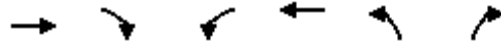
West Harbor Amphitheater
12: Miner St & 22nd St

Existing Thursday PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	237	35	14	5	47	16	25	49	3	9	26	337
Future Volume (veh/h)	237	35	14	5	47	16	25	49	3	9	26	337
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		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	272	40	6	6	54	2	29	56	1	10	30	81
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, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	340	1024	150	23	374	14	95	839	15	37	330	279
Arrive On Green	0.19	0.32	0.32	0.01	0.11	0.11	0.05	0.23	0.23	0.02	0.17	0.17
Sat Flow, veh/h	1810	3153	461	1810	3551	131	1810	3628	65	1810	1900	1608
Grp Volume(v), veh/h	272	22	24	6	27	29	29	28	29	10	30	81
Grp Sat Flow(s),veh/h/ln	1810	1805	1810	1810	1805	1876	1810	1805	1887	1810	1900	1608
Q Serve(g_s), s	7.8	0.5	0.5	0.2	0.7	0.8	0.8	0.6	0.7	0.3	0.7	1.8
Cycle Q Clear(g_c), s	7.8	0.5	0.5	0.2	0.7	0.8	0.8	0.6	0.7	0.3	0.7	1.8
Prop In Lane	1.00		0.25	1.00		0.07	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	340	586	587	23	190	197	95	418	437	37	330	279
V/C Ratio(X)	0.80	0.04	0.04	0.26	0.14	0.15	0.31	0.07	0.07	0.27	0.09	0.29
Avail Cap(c_a), veh/h	502	1002	1004	502	1002	1041	502	1002	1047	502	1054	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	12.5	12.5	26.4	22.0	22.0	24.7	16.2	16.2	26.1	18.7	10.8
Incr Delay (d2), s/veh	5.6	0.1	0.1	5.8	0.8	0.8	1.8	0.2	0.2	3.8	0.3	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(95%),veh/ln	6.5	0.3	0.3	0.2	0.6	0.6	0.7	0.5	0.5	0.3	0.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	12.5	12.5	32.3	22.7	22.7	26.5	16.4	16.4	29.8	19.0	12.3
LnGrp LOS	C	B	B	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		318			62			86			121	
Approach Delay, s/veh		24.6			23.7			19.8			15.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.2	12.7	8.8	15.4	5.3	24.6	5.7	18.5				
Change Period (Y+Rc), s	7.0	* 7	* 6	* 6	4.6	7.0	4.6	* 6				
Max Green Setting (Gmax), s	15.0	* 30	* 15	* 30	15.0	30.0	15.0	* 30				
Max Q Clear Time (g_c+I1), s	9.8	2.8	2.8	3.8	2.2	2.5	2.3	2.7				
Green Ext Time (p_c), s	0.4	0.5	0.0	0.9	0.0	0.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			21.9									
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.												

West Harbor Amphitheater
13: Via Cabrillo-Marina & 22nd St

Existing Thursday PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵↵	↵
Traffic Volume (vph)	199	67	73	314	62	88
Future Volume (vph)	199	67	73	314	62	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		4.0	5.0	4.2	4.2
Lane Util. Factor	0.95		1.00	0.95	0.97	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3452		1787	3574	3502	1615
Flt Permitted	1.00		0.53	1.00	0.95	1.00
Satd. Flow (perm)	3452		990	3574	3502	1615
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	205	69	75	324	64	91
RTOR Reduction (vph)	24	0	0	0	0	58
Lane Group Flow (vph)	250	0	75	324	64	33
Confl. Peds. (#/hr)		4				
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	6		5	2	4	4 5
Permitted Phases			2			
Actuated Green, G (s)	22.2		30.0	24.6	7.8	17.4
Effective Green, g (s)	22.2		30.0	24.6	7.8	17.4
Actuated g/C Ratio	0.46		0.62	0.51	0.16	0.36
Clearance Time (s)	5.0		4.0	5.0	4.2	
Vehicle Extension (s)	6.9		3.0	6.6	6.7	
Lane Grp Cap (vph)	1576		699	1809	562	578
v/s Ratio Prot	0.07		c0.01	c0.09	c0.02	0.02
v/s Ratio Perm			0.05			
v/c Ratio	0.16		0.11	0.18	0.11	0.06
Uniform Delay, d1	7.7		3.8	6.5	17.4	10.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		0.1	0.2	0.3	0.1
Delay (s)	7.9		3.8	6.7	17.7	10.4
Level of Service	A		A	A	B	B
Approach Delay (s)	7.9			6.1	13.4	
Approach LOS	A			A	B	

Intersection Summary

HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.17		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	13.2
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Existing Sunday PM

West Harbor Amphitheater
1: Front St & Knoll Dr/WBCT Gate 2

Existing Sunday PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	5	9	0	0	0	170	10	1	117	0
Future Volume (veh/h)	1	0	5	9	0	0	0	170	10	1	117	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	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	1900	1900	1900	1900	0	1900	0	1900	1900	1885	1885	0
Adj Flow Rate, veh/h	1	0	5	10	0	0	0	185	9	1	127	0
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, %	0	0	0	0	0	0	0	0	0	1	1	0
Cap, veh/h	27	0	24	0	0	0	0	1683	81	887	1721	0
Arrive On Green	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.48	0.48	0.48	0.48	0.00
Sat Flow, veh/h	1810	0	1610		0		0	3596	169	1198	3676	0
Grp Volume(v), veh/h	1	0	5		0.0		0	95	99	1	127	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1865	1198	1791	0
Q Serve(g_s), s	0.0	0.0	0.1				0.0	0.6	0.6	0.0	0.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1				0.0	0.6	0.6	0.6	0.4	0.0
Prop In Lane	1.00		1.00				0.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	27	0	24				0	868	896	887	1721	0
V/C Ratio(X)	0.04	0.00	0.21				0.00	0.11	0.11	0.00	0.07	0.00
Avail Cap(c_a), veh/h	2174	0	1935				0	3036	3138	2327	6025	0
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	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	10.1	0.0	10.1				0.0	3.0	3.0	3.1	2.9	0.0
Incr Delay (d2), s/veh	1.2	0.0	9.1				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1				0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	0.0	19.3				0.0	3.1	3.1	3.1	3.0	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	A
Approach Vol, veh/h		6						194			128	
Approach Delay, s/veh		17.9						3.1			3.0	
Approach LOS		B						A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		15.5				15.5		5.3				
Change Period (Y+Rc), s		* 5.5				* 5.5		5.0				
Max Green Setting (Gmax), s		* 35				* 35		25.0				
Max Q Clear Time (g_c+I1), s		2.6				2.6		2.1				
Green Ext Time (p_c), s		1.6				2.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			3.3									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

West Harbor Amphitheater
2: Front St & SR47 WB On Ramp























Existing Sunday PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	476	169	121	10
Future Volume (Veh/h)	0	0	476	169	121	10
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	0	573	204	146	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				523	633	
pX, platoon unblocked						
vC, conflicting volume	1400	79	158			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1400	79	158			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	60			
cM capacity (veh/h)	80	972	1427			
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	
Volume Total	573	102	102	97	61	
Volume Left	573	0	0	0	0	
Volume Right	0	0	0	0	12	
cSH	1427	1700	1700	1700	1700	
Volume to Capacity	0.40	0.06	0.06	0.06	0.04	
Queue Length 95th (ft)	49	0	0	0	0	
Control Delay (s)	9.2	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s)	6.8			0.0		
Approach LOS						
Intersection Summary						
Average Delay	5.6					
Intersection Capacity Utilization	36.7%			ICU Level of Service	A	
Analysis Period (min)	15					

West Harbor Amphitheater
3: Harbor Blvd/Front St & Swinford St

Existing Sunday PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	18	840	11	21	22	485	600	20	9	95	33
Future Volume (veh/h)	33	18	840	11	21	22	485	600	20	9	95	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		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			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	31	0	330	12	23	3	533	659	21	10	104	4
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, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	291	0	1184	102	208	28	720	1039	33	37	527	230
Arrive On Green	0.16	0.00	0.16	0.09	0.09	0.09	0.21	0.35	0.35	0.02	0.15	0.15
Sat Flow, veh/h	1810	0	3220	1112	2269	305	3483	2996	95	1810	3610	1577
Grp Volume(v), veh/h	31	0	330	20	0	18	533	269	411	10	104	4
Grp Sat Flow(s),veh/h/ln	1810	0	1610	1844	0	1842	1742	1225	1866	1810	1805	1577
Q Serve(g_s), s	0.9	0.0	0.0	0.6	0.0	0.6	8.9	11.4	11.4	0.3	1.6	0.1
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.6	0.0	0.6	8.9	11.4	11.4	0.3	1.6	0.1
Prop In Lane	1.00		1.00	0.60		0.17	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	291	0	1184	169	0	169	720	425	647	37	527	230
V/C Ratio(X)	0.11	0.00	0.28	0.12	0.00	0.11	0.74	0.63	0.63	0.27	0.20	0.02
Avail Cap(c_a), veh/h	1021	0	2483	892	0	891	1965	593	903	438	2037	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	13.8	25.9	0.0	25.9	23.0	17.0	17.0	29.9	23.3	22.7
Incr Delay (d2), s/veh	0.3	0.0	0.2	0.3	0.0	0.3	1.5	2.9	1.9	3.9	0.5	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(95%),veh/ln	0.7	0.0	2.8	0.5	0.0	0.5	6.3	5.7	8.2	0.3	1.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	14.0	26.2	0.0	26.1	24.6	19.9	18.9	33.8	23.8	22.8
LnGrp LOS	C	A	B	C	A	C	C	B	B	C	C	C
Approach Vol, veh/h		361			38			1213			118	
Approach Delay, s/veh		14.8			26.2			21.6			24.6	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	27.7		16.1	19.0	15.3		11.7				
Change Period (Y+Rc), s	* 5.3	6.2		* 6.1	6.2	6.2		6.0				
Max Green Setting (Gmax), s	* 15	30.0		* 35	35.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	2.3	13.4		2.9	10.9	3.6		2.6				
Green Ext Time (p_c), s	0.0	6.1		2.7	1.9	1.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			20.5									
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.												

West Harbor Amphitheater
4: Harbor Blvd & 1st St

Existing Sunday PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	0	15	12	2	20	10	1010	5	4	830	35
Future Volume (veh/h)	43	0	15	12	2	20	10	1010	5	4	830	35
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		0.99
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	1856	1856	1856	1515	1515	1515	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	46	0	2	13	2	2	11	1074	5	4	883	23
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, %	3	3	3	26	26	26	1	1	1	0	0	0
Cap, veh/h	153	0	135	52	8	53	452	2357	11	15	2519	1108
Arrive On Green	0.09	0.00	0.09	0.04	0.04	0.04	0.64	0.64	0.64	0.01	0.70	0.70
Sat Flow, veh/h	1767	0	1556	1258	194	1280	620	3656	17	1810	3610	1588
Grp Volume(v), veh/h	46	0	2	15	0	2	11	526	553	4	883	23
Grp Sat Flow(s),veh/h/ln	1767	0	1556	1452	0	1280	620	1791	1882	1810	1805	1588
Q Serve(g_s), s	2.2	0.0	0.1	0.9	0.0	0.1	0.7	13.3	13.3	0.2	8.8	0.4
Cycle Q Clear(g_c), s	2.2	0.0	0.1	0.9	0.0	0.1	4.7	13.3	13.3	0.2	8.8	0.4
Prop In Lane	1.00		1.00	0.87		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	153	0	135	60	0	53	452	1155	1213	15	2519	1108
V/C Ratio(X)	0.30	0.00	0.01	0.25	0.00	0.04	0.02	0.46	0.46	0.26	0.35	0.02
Avail Cap(c_a), veh/h	463	0	408	397	0	350	452	1155	1213	241	2519	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.93	0.93	0.93	0.93	0.93	0.93
Uniform Delay (d), s/veh	38.6	0.0	37.6	41.8	0.0	41.4	7.3	8.0	8.0	44.3	5.4	4.2
Incr Delay (d2), s/veh	1.1	0.0	0.0	2.1	0.0	0.3	0.1	1.2	1.1	8.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.1	0.6	0.0	0.1	0.2	8.1	8.4	0.2	4.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	37.6	43.9	0.0	41.7	7.4	9.2	9.2	52.5	5.8	4.2
LnGrp LOS	D	A	D	D	A	D	A	A	A	D	A	A
Approach Vol, veh/h		48			17			1090			910	
Approach Delay, s/veh		39.6			43.7			9.2			6.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		67.7		13.2	4.8	62.9		9.1				
Change Period (Y+Rc), s		4.9		* 5.4	4.0	4.9		5.4				
Max Green Setting (Gmax), s		26.1		* 24	12.0	10.1		24.6				
Max Q Clear Time (g_c+I1), s		10.8		4.2	2.2	15.3		2.9				
Green Ext Time (p_c), s		8.4		0.1	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

West Harbor Amphitheater
5: Harbor Blvd & 5th St

Existing Sunday PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	1	22	0	4	0	16	937	1	0	759	76
Future Volume (veh/h)	67	1	22	0	4	0	16	937	1	0	759	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	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			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	0	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	74	1	5	0	4	0	18	1030	1	0	834	50
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, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	191	308	253	235	103	0	380	1816	792	0	1816	791
Arrive On Green	0.11	0.16	0.16	0.00	0.05	0.00	0.51	0.51	0.51	0.00	0.51	0.51
Sat Flow, veh/h	1810	1900	1563	1810	1900	0	633	3582	1561	0	3676	1560
Grp Volume(v), veh/h	74	1	5	0	4	0	18	1030	1	0	834	50
Grp Sat Flow(s),veh/h/ln	1810	1900	1563	1810	1900	0	633	1791	1561	0	1791	1560
Q Serve(g_s), s	1.8	0.0	0.1	0.0	0.1	0.0	0.9	9.3	0.0	0.0	7.0	0.8
Cycle Q Clear(g_c), s	1.8	0.0	0.1	0.0	0.1	0.0	7.9	9.3	0.0	0.0	7.0	0.8
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	191	308	253	235	103	0	380	1816	792	0	1816	791
V/C Ratio(X)	0.39	0.00	0.02	0.00	0.04	0.00	0.05	0.57	0.00	0.00	0.46	0.06
Avail Cap(c_a), veh/h	773	811	667	1003	811	0	464	2294	1000	0	2294	999
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.5	16.5	16.5	0.0	21.0	0.0	10.0	8.0	5.7	0.0	7.4	5.9
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.0	0.2	0.0	0.1	0.8	0.0	0.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.1	0.0	0.1	0.0	0.2	4.7	0.0	0.0	3.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	16.5	16.5	0.0	21.1	0.0	10.1	8.8	5.7	0.0	7.8	5.9
LnGrp LOS	C	B	B	A	C	A	B	A	A	A	A	A
Approach Vol, veh/h		80			4			1049			884	
Approach Delay, s/veh		20.5			21.1			8.8			7.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		29.0	9.1	8.7		29.0	4.1	13.8				
Change Period (Y+Rc), s		* 5.2	* 4.2	* 6.2		* 5.2	* 4.2	* 6.2				
Max Green Setting (Gmax), s		* 30	* 20	* 20		* 30	* 20	* 20				
Max Q Clear Time (g_c+I1), s		9.0	3.8	2.1		11.3	0.0	2.1				
Green Ext Time (p_c), s		9.6	0.1	0.0		12.4	0.0	0.0				
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.												

West Harbor Amphitheater
6: Harbor Blvd & 7th St

Existing Sunday PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	102	45	56	852	617	151
Future Volume (veh/h)	102	45	56	852	617	151
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	No	
Adj Sat Flow, veh/h/ln	1796	1796	1870	1870	1900	1900
Adj Flow Rate, veh/h	116	12	64	968	701	120
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	7	7	2	2	0	0
Cap, veh/h	519	404	499	2151	1358	588
Arrive On Green	0.16	0.16	0.11	0.61	0.38	0.38
Sat Flow, veh/h	3319	1522	1781	3647	3705	1564
Grp Volume(v), veh/h	116	12	64	968	701	120
Grp Sat Flow(s),veh/h/ln	1659	1522	1781	1777	1805	1564
Q Serve(g_s), s	1.4	0.3	0.8	6.9	7.0	2.4
Cycle Q Clear(g_c), s	1.4	0.3	0.8	6.9	7.0	2.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	519	404	499	2151	1358	588
V/C Ratio(X)	0.22	0.03	0.13	0.45	0.52	0.20
Avail Cap(c_a), veh/h	1426	820	1070	2290	2326	1008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	12.7	6.3	5.0	11.2	9.8
Incr Delay (d2), s/veh	0.2	0.0	0.1	0.2	0.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.5	0.4	2.5	4.1	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.4	12.7	6.5	5.2	11.8	10.1
LnGrp LOS	B	B	A	A	B	B
Approach Vol, veh/h	128			1032	821	
Approach Delay, s/veh	16.9			5.3	11.5	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.7	23.0		12.9		33.7
Change Period (Y+Rc), s	5.6	* 5.5		5.6		* 5.5
Max Green Setting (Gmax), s	20.0	* 30		20.0		* 30
Max Q Clear Time (g_c+I1), s	2.8	9.0		3.4		8.9
Green Ext Time (p_c), s	0.1	8.3		0.3		10.2

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.

West Harbor Amphitheater
7: Sampson Wy/Harbor Blvd & Miner St

Existing Sunday PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↖	↖	↖	↑↑	↑↑	↘
Traffic Volume (veh/h)	518	12	24	400	239	408
Future Volume (veh/h)	518	12	24	400	239	408
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	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	595	7	28	460	275	328
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1073	575	414	1553	934	896
Arrive On Green	0.31	0.31	0.05	0.44	0.26	0.26
Sat Flow, veh/h	3456	1585	1781	3647	3647	1537
Grp Volume(v), veh/h	595	7	28	460	275	328
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777	1777	1537
Q Serve(g_s), s	6.6	0.1	0.5	3.8	2.8	5.3
Cycle Q Clear(g_c), s	6.6	0.1	0.5	3.8	2.8	5.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1073	575	414	1553	934	896
V/C Ratio(X)	0.55	0.01	0.07	0.30	0.29	0.37
Avail Cap(c_a), veh/h	2257	1118	1096	2320	2320	1496
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	9.4	9.9	8.4	13.5	5.3
Incr Delay (d2), s/veh	1.2	0.0	0.1	0.2	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.0	0.1	0.3	2.0	1.8	4.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.4	9.4	10.0	8.5	13.8	5.7
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h	602			488	603	
Approach Delay, s/veh	14.4			8.6	9.4	
Approach LOS	B			A	A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.0	18.1			26.1	19.9
Change Period (Y+Rc), s	5.6	* 6			* 6	5.6
Max Green Setting (Gmax), s	20.0	* 30			* 30	30.0
Max Q Clear Time (g_c+I1), s	2.5	7.3			5.8	8.6
Green Ext Time (p_c), s	0.1	4.5			4.6	5.7

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.

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	11	0	404	0	36	216	0
Future Vol, veh/h	0	0	0	0	0	11	0	404	0	36	216	0
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
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	0	0	0
Mvmt Flow	0	0	0	0	0	13	0	470	0	42	251	0
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	0	8	8	7.5
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	100%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	202	202	0	11	36	108	108
LT Vol	0	0	0	0	0	36	0	0
Through Vol	0	202	202	0	0	0	108	108
RT Vol	0	0	0	0	11	0	0	0
Lane Flow Rate	0	235	235	0	13	42	126	126
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0	0.307	0.193	0	0.018	0.061	0.166	0.107
Departure Headway (Hd)	4.7	4.7	2.965	5.882	5.159	5.274	4.772	3.068
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	759	1193	0	698	674	746	1149
Service Time	2.46	2.46	0.725	3.582	2.859	3.044	2.542	0.837
HCM Lane V/C Ratio	0	0.31	0.197	0	0.019	0.062	0.169	0.11
HCM Control Delay	7.5	9.6	6.4	8.6	8	8.4	8.5	6.2
HCM Lane LOS	N	A	A	N	A	A	A	A
HCM 95th-tile Q	0	1.3	0.7	0	0.1	0.2	0.6	0.4

Intersection						
Int Delay, s/veh	6.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	1	278	122	6	134	80
Future Vol, veh/h	1	278	122	6	134	80
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	160	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	8	8	0	0
Mvmt Flow	1	323	142	7	156	93

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	507	77	0	0	151
Stage 1	148	-	-	-	-
Stage 2	359	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	500	975	-	-	1442
Stage 1	870	-	-	-	-
Stage 2	683	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	445	973	-	-	1440
Mov Cap-2 Maneuver	445	-	-	-	-
Stage 1	868	-	-	-	-
Stage 2	609	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	4.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	973	1440
HCM Lane V/C Ratio	-	-	0.332	0.108
HCM Control Delay (s)	-	-	10.5	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1.5	0.4

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	31	0	76	0	54	24	17	59	0
Future Vol, veh/h	0	0	0	31	0	76	0	54	24	17	59	0
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
Heavy Vehicles, %	0	0	0	0	0	0	12	12	12	0	0	0
Mvmt Flow	0	0	0	36	0	88	0	63	28	20	69	0
Number of Lanes	0	1	0	0	1	0	0	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	1
HCM Control Delay	0	8.1	8	7.2
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	29%	100%	0%	0%
Vol Thru, %	100%	43%	100%	0%	0%	100%	100%
Vol Right, %	0%	57%	0%	71%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	42	0	107	17	30	30
LT Vol	0	0	0	31	17	0	0
Through Vol	36	18	0	0	0	30	30
RT Vol	0	24	0	76	0	0	0
Lane Flow Rate	42	49	0	124	20	34	34
Geometry Grp	8	8	7	7	7	7	7
Degree of Util (X)	0.06	0.065	0	0.157	0.03	0.047	0.03
Departure Headway (Hd)	5.2	4.798	5.011	4.549	5.387	4.885	3.178
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	691	749	0	791	667	736	1130
Service Time	2.915	2.513	2.727	2.261	3.098	2.596	0.888
HCM Lane V/C Ratio	0.061	0.065	0	0.157	0.03	0.046	0.03
HCM Control Delay	8.2	7.8	7.7	8.1	8.3	7.8	6
HCM Lane LOS	A	A	N	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0	0.6	0.1	0.1	0.1

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗		↕			↕			↑	↗
Traffic Vol, veh/h	47	1	20	0	0	0	23	22	0	0	22	63
Future Vol, veh/h	47	1	20	0	0	0	23	22	0	0	22	63
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
Heavy Vehicles, %	14	14	14	0	0	0	0	0	0	0	0	0
Mvmt Flow	51	1	22	0	0	0	25	24	0	0	24	68
Number of Lanes	1	1	1	0	2	0	0	2	0	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	8.3	0	8	7.3
HCM LOS	A	-	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	76%	0%	100%	0%	0%	0%	0%	0%	0%
Vol Thru, %	24%	100%	0%	100%	0%	100%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	15	47	1	20	0	0	22	63
LT Vol	23	0	47	0	0	0	0	0	0
Through Vol	7	15	0	1	0	0	0	22	0
RT Vol	0	0	0	0	20	0	0	0	63
Lane Flow Rate	33	16	51	1	22	0	0	24	68
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.048	0.022	0.079	0.002	0.027	0	0	0.032	0.078
Departure Headway (Hd)	5.262	4.883	5.599	5.098	4.397	5.027	3.321	4.824	4.123
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	683	736	643	705	817	0	0	746	872
Service Time	2.971	2.591	3.309	2.808	2.107	2.74	1.034	2.531	1.83
HCM Lane V/C Ratio	0.048	0.022	0.079	0.001	0.027	0	0	0.032	0.078
HCM Control Delay	8.2	7.7	8.8	7.8	7.2	7.7	6	7.7	7.2
HCM Lane LOS	A	A	A	A	A	N	N	A	A
HCM 95th-tile Q	0.2	0.1	0.3	0	0.1	0	0	0.1	0.3

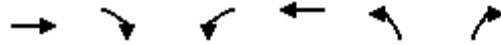
West Harbor Amphitheater
12: Miner St & 22nd St

Existing Sunday PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	56	30	16	64	19	33	53	11	15	32	222
Future Volume (veh/h)	350	56	30	16	64	19	33	53	11	15	32	222
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		0.98	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	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	412	66	15	19	75	3	39	62	2	18	38	49
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	0	0	0	0	0	0
Cap, veh/h	427	1059	233	64	435	17	114	744	24	62	299	249
Arrive On Green	0.24	0.37	0.37	0.04	0.12	0.12	0.06	0.21	0.21	0.03	0.16	0.16
Sat Flow, veh/h	1781	2889	634	1781	3480	138	1810	3568	114	1810	1900	1577
Grp Volume(v), veh/h	412	40	41	19	38	40	39	31	33	18	38	49
Grp Sat Flow(s),veh/h/ln	1781	1777	1746	1781	1777	1842	1810	1805	1877	1810	1900	1577
Q Serve(g_s), s	14.3	0.9	1.0	0.7	1.2	1.2	1.3	0.9	0.9	0.6	1.1	1.3
Cycle Q Clear(g_c), s	14.3	0.9	1.0	0.7	1.2	1.2	1.3	0.9	0.9	0.6	1.1	1.3
Prop In Lane	1.00		0.36	1.00		0.08	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	427	652	640	64	222	230	114	376	392	62	299	249
V/C Ratio(X)	0.97	0.06	0.06	0.30	0.17	0.17	0.34	0.08	0.08	0.29	0.13	0.20
Avail Cap(c_a), veh/h	427	851	836	427	851	882	433	864	899	433	910	755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	12.8	12.9	29.4	24.5	24.5	28.1	20.0	20.0	29.5	22.7	13.1
Incr Delay (d2), s/veh	34.7	0.1	0.1	2.5	0.8	0.8	1.8	0.2	0.2	2.5	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(95%),veh/ln	14.9	0.6	0.7	0.6	1.0	1.0	1.0	0.7	0.7	0.5	0.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	12.9	13.0	32.0	25.3	25.3	29.9	20.2	20.2	32.0	23.1	14.1
LnGrp LOS	E	B	B	C	C	C	C	C	C	C	C	B
Approach Vol, veh/h		493			97			103			105	
Approach Delay, s/veh		50.8			26.6			23.9			20.4	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.0	14.8	9.9	15.9	6.9	30.0	6.8	19.1				
Change Period (Y+Rc), s	7.0	* 7	* 6	* 6	4.6	7.0	4.6	* 6				
Max Green Setting (Gmax), s	15.0	* 30	* 15	* 30	15.0	30.0	15.0	* 30				
Max Q Clear Time (g_c+I1), s	16.3	3.2	3.3	3.3	2.7	3.0	2.6	2.9				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			40.4									
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.												

West Harbor Amphitheater
13: Via Cabrillo-Marina & 22nd St

Existing Sunday PM

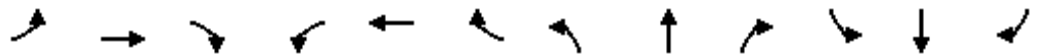


Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↙↘	↘
Traffic Volume (vph)	210	62	87	287	75	202
Future Volume (vph)	210	62	87	287	75	202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		4.0	5.0	4.2	4.2
Lane Util. Factor	0.95		1.00	0.95	0.97	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3458		1752	3505	3367	1553
Flt Permitted	1.00		0.48	1.00	0.95	1.00
Satd. Flow (perm)	3458		878	3505	3367	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	221	65	92	302	79	213
RTOR Reduction (vph)	23	0	0	0	0	118
Lane Group Flow (vph)	263	0	92	302	79	95
Confl. Peds. (#/hr)		13				
Confl. Bikes (#/hr)		2				2
Heavy Vehicles (%)	0%	0%	3%	3%	4%	4%
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	6		5	2	4	4 5
Permitted Phases			2			
Actuated Green, G (s)	19.0		30.4	23.3	11.0	22.6
Effective Green, g (s)	19.0		30.4	23.3	11.0	22.6
Actuated g/C Ratio	0.38		0.60	0.46	0.22	0.45
Clearance Time (s)	5.0		4.0	5.0	4.2	
Vehicle Extension (s)	6.9		3.0	6.6	6.7	
Lane Grp Cap (vph)	1298		655	1613	731	693
v/s Ratio Prot	0.08		c0.02	c0.09	0.02	c0.06
v/s Ratio Perm			0.06			
v/c Ratio	0.20		0.14	0.19	0.11	0.14
Uniform Delay, d1	10.7		4.4	8.1	15.9	8.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3		0.1	0.2	0.2	0.3
Delay (s)	10.9		4.5	8.2	16.1	8.6
Level of Service	B		A	A	B	A
Approach Delay (s)	10.9			7.4	10.6	
Approach LOS	B			A	B	
Intersection Summary						
HCM 2000 Control Delay			9.4		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.19			
Actuated Cycle Length (s)			50.6		Sum of lost time (s)	13.2
Intersection Capacity Utilization			32.3%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Future Thursday PM

West Harbor Amphitheater
1: Front St & SR-47 WB Ramps/WBCT Gate 2

2027 Thursday PM - With Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	99	730	50	110	10	698	193	67	31	261	4
Future Volume (veh/h)	18	99	730	50	110	10	698	193	67	31	261	4
Initial Q (Qb), veh	0	0	0	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		0.99
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	1707	1707	1707	1203	1203	1203	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	19	106	785	54	118	8	751	208	49	33	281	3
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, %	13	13	13	47	47	47	6	6	6	6	6	6
Cap, veh/h	101	444	1229	344	381	26	746	793	182	157	542	6
Arrive On Green	0.06	0.26	0.26	0.15	0.34	0.34	0.22	0.29	0.29	0.09	0.16	0.16
Sat Flow, veh/h	1626	1707	2547	2224	1114	76	3346	2765	636	1725	3487	37
Grp Volume(v), veh/h	19	106	785	54	0	126	751	127	130	33	139	145
Grp Sat Flow(s),veh/h/ln	1626	1707	1273	1112	0	1190	1673	1721	1680	1725	1721	1804
Q Serve(g_s), s	1.1	4.7	22.2	2.0	0.0	7.5	21.5	5.5	5.7	1.7	7.1	7.2
Cycle Q Clear(g_c), s	1.1	4.7	22.2	2.0	0.0	7.5	21.5	5.5	5.7	1.7	7.1	7.2
Prop In Lane	1.00		1.00	1.00		0.06	1.00		0.38	1.00		0.02
Lane Grp Cap(c), veh/h	101	444	1229	344	0	407	746	494	482	157	267	280
V/C Ratio(X)	0.19	0.24	0.64	0.16	0.00	0.31	1.01	0.26	0.27	0.21	0.52	0.52
Avail Cap(c_a), veh/h	354	460	1254	369	0	407	746	494	482	375	383	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	42.9	28.2	18.7	35.3	0.0	23.4	37.5	26.5	26.6	40.6	37.4	37.4
Incr Delay (d2), s/veh	0.9	0.3	1.1	0.2	0.0	0.4	34.8	0.3	0.3	0.7	1.6	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	3.6	10.7	1.0	0.0	3.9	17.9	4.0	4.1	1.3	5.5	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	28.5	19.7	35.5	0.0	23.8	72.3	26.8	26.9	41.3	39.0	38.9
LnGrp LOS	D	C	B	D	A	C	F	C	C	D	D	D
Approach Vol, veh/h		910			180			1008			317	
Approach Delay, s/veh		21.3			27.3			60.7			39.2	
Approach LOS		C			C			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.3	33.2	18.9	30.1	27.0	20.5	11.0	38.0				
Change Period (Y+Rc), s	* 5.5	* 5.5	4.0	5.0	* 5.5	* 5.5	5.0	* 5				
Max Green Setting (Gmax), s	* 21	* 22	16.0	26.0	* 22	* 22	21.0	* 21				
Max Q Clear Time (g_c+I1), s	3.7	7.7	4.0	24.2	23.5	9.2	3.1	9.5				
Green Ext Time (p_c), s	0.0	1.1	0.1	0.8	0.0	1.2	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

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

West Harbor Amphitheater
3: Harbor Blvd/Front St & Swinford St

2027 Thursday PM - With Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	129	1056	15	85	0	481	794	13	95	855	90
Future Volume (veh/h)	44	129	1056	15	85	0	481	794	13	95	855	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		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	1841	1841	1841	1900	1900	1900	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	47	139	573	16	91	0	517	854	13	102	919	30
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, %	4	4	4	0	0	0	1	1	1	2	2	2
Cap, veh/h	147	312	851	69	242	359	502	1468	22	329	1203	527
Arrive On Green	0.08	0.17	0.17	0.04	0.13	0.00	0.14	0.41	0.41	0.10	0.34	0.34
Sat Flow, veh/h	1753	1841	2685	1810	1900	1610	3483	3611	55	3456	3554	1558
Grp Volume(v), veh/h	47	139	573	16	91	0	517	424	443	102	919	30
Grp Sat Flow(s),veh/h/ln	1753	1841	1342	1810	1900	1610	1742	1791	1875	1728	1777	1558
Q Serve(g_s), s	1.9	5.0	2.4	0.6	3.2	0.0	10.6	13.5	13.5	2.0	17.0	0.6
Cycle Q Clear(g_c), s	1.9	5.0	2.4	0.6	3.2	0.0	10.6	13.5	13.5	2.0	17.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	147	312	851	69	242	359	502	728	762	329	1203	527
V/C Ratio(X)	0.32	0.45	0.67	0.23	0.38	0.00	1.03	0.58	0.58	0.31	0.76	0.06
Avail Cap(c_a), veh/h	238	312	851	664	697	744	502	728	762	376	1203	527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	27.4	8.6	34.3	29.4	0.0	31.5	17.0	17.0	31.0	21.7	6.8
Incr Delay (d2), s/veh	2.5	4.6	4.2	1.7	1.0	0.0	48.1	3.4	3.2	0.5	4.6	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	4.5	4.6	0.6	2.7	0.0	12.2	9.6	9.9	1.5	11.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	32.0	12.8	36.1	30.4	0.0	79.6	20.4	20.2	31.6	26.3	7.0
LnGrp LOS	C	C	B	D	C	A	F	C	C	C	C	A
Approach Vol, veh/h		759			107			1384			1051	
Approach Delay, s/veh		17.6			31.2			42.4			26.3	
Approach LOS		B			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.0	35.3	8.8	18.5	16.0	30.3	11.9	15.4				
Change Period (Y+Rc), s	4.0	5.4	6.0	* 6	5.4	5.4	* 5.7	6.0				
Max Green Setting (Gmax), s	8.0	28.9	27.0	* 10	10.6	24.9	* 10	27.0				
Max Q Clear Time (g_c+I1), s	4.0	15.5	2.6	7.0	12.6	19.0	3.9	5.2				
Green Ext Time (p_c), s	0.1	7.1	0.0	1.6	0.0	3.0	0.1	0.4				

Intersection Summary

HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

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

West Harbor Amphitheater
4: Harbor Blvd & 1st St























2027 Thursday PM - With Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	258	44	24	38	31	24	20	934	48	3	1542	255
Future Volume (veh/h)	258	44	24	38	31	24	20	934	48	3	1542	255
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		0.99	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	1900	1900	1900	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	297	51	11	44	36	3	23	1074	53	3	1772	262
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	2	2	0	0	0	1	1	1	0	0	0
Cap, veh/h	328	274	59	157	150	13	104	1914	94	12	2138	939
Arrive On Green	0.18	0.18	0.18	0.09	0.09	0.09	0.55	0.55	0.55	0.01	0.59	0.59
Sat Flow, veh/h	1781	1489	321	1810	1728	144	210	3473	171	1810	3610	1585
Grp Volume(v), veh/h	297	0	62	44	0	39	23	554	573	3	1772	262
Grp Sat Flow(s),veh/h/ln	1781	0	1810	1810	0	1872	210	1791	1853	1810	1805	1585
Q Serve(g_s), s	18.8	0.0	3.3	2.6	0.0	2.2	11.3	23.1	23.1	0.2	45.2	9.3
Cycle Q Clear(g_c), s	18.8	0.0	3.3	2.6	0.0	2.2	51.8	23.1	23.1	0.2	45.2	9.3
Prop In Lane	1.00		0.18	1.00		0.08	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	328	0	334	157	0	163	104	987	1021	12	2138	939
V/C Ratio(X)	0.90	0.00	0.19	0.28	0.00	0.24	0.22	0.56	0.56	0.26	0.83	0.28
Avail Cap(c_a), veh/h	356	0	362	378	0	391	104	987	1021	126	2138	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	0.62	0.62	0.62
Uniform Delay (d), s/veh	45.9	0.0	39.6	49.1	0.0	49.0	41.4	16.8	16.8	56.9	18.8	11.5
Incr Delay (d2), s/veh	24.5	0.0	0.3	1.0	0.0	0.8	4.4	2.1	2.0	7.2	2.4	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(95%),veh/ln	15.8	0.0	2.7	2.2	0.0	1.9	1.3	14.4	14.8	0.2	23.5	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	0.0	39.9	50.1	0.0	49.7	45.8	18.9	18.8	64.1	21.2	11.9
LnGrp LOS	E	A	D	D	A	D	D	B	B	E	C	B
Approach Vol, veh/h		359			83			1150			2037	
Approach Delay, s/veh		65.1			49.9			19.4			20.1	
Approach LOS		E			D			B			C	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		73.0		26.6	4.7	68.3		15.4				
Change Period (Y+Rc), s		4.9		* 5.4	4.0	4.9		5.4				
Max Green Setting (Gmax), s		52.3		* 23	8.0	40.3		24.0				
Max Q Clear Time (g_c+I1), s		47.2		20.8	2.2	53.8		4.6				
Green Ext Time (p_c), s		4.9		0.3	0.0	0.0		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				25.0								
HCM 6th LOS				C								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

West Harbor Amphitheater
5: Harbor Blvd & 5th St

2027 Thursday PM - With Project

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	2	51	2	3	0	40	801	2	0	1451	154
Future Volume (veh/h)	156	2	51	2	3	0	40	801	2	0	1451	154
Initial 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		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	0	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	170	2	9	2	3	0	43	871	1	0	1577	129
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, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	216	303	256	208	99	0	187	2091	929	0	2091	929
Arrive On Green	0.12	0.16	0.16	0.01	0.05	0.00	0.58	0.58	0.58	0.00	0.58	0.58
Sat Flow, veh/h	1810	1900	1604	1810	1900	0	289	3582	1591	0	3676	1591
Grp Volume(v), veh/h	170	2	9	2	3	0	43	871	1	0	1577	129
Grp Sat Flow(s),veh/h/ln	1810	1900	1604	1810	1900	0	289	1791	1591	0	1791	1591
Q Serve(g_s), s	5.8	0.1	0.3	0.0	0.1	0.0	8.3	8.5	0.0	0.0	20.9	2.3
Cycle Q Clear(g_c), s	5.8	0.1	0.3	0.0	0.1	0.0	29.2	8.5	0.0	0.0	20.9	2.3
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	216	303	256	208	99	0	187	2091	929	0	2091	929
V/C Ratio(X)	0.79	0.01	0.04	0.01	0.03	0.00	0.23	0.42	0.00	0.00	0.75	0.14
Avail Cap(c_a), veh/h	227	798	674	412	804	0	198	2223	987	0	2223	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	22.6	22.7	28.0	28.7	0.0	20.7	7.3	5.5	0.0	9.9	6.0
Incr Delay (d2), s/veh	16.1	0.0	0.1	0.0	0.1	0.0	1.8	0.4	0.0	0.0	1.7	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(95%),veh/ln	6.0	0.0	0.2	0.1	0.1	0.0	1.1	4.6	0.0	0.0	10.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	22.6	22.7	28.0	28.8	0.0	22.5	7.7	5.5	0.0	11.6	6.1
LnGrp LOS	D	C	C	C	C	A	C	A	A	A	B	A
Approach Vol, veh/h		181			5			915			1706	
Approach Delay, s/veh		42.1			28.5			8.4			11.2	
Approach LOS		D			C			A			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		42.4	11.8	9.5		42.4	5.0	16.4				
Change Period (Y+Rc), s		* 5.2	* 4.2	* 6.2		* 5.2	* 4.2	* 6.2				
Max Green Setting (Gmax), s		* 40	* 8	* 27		* 40	* 8	* 27				
Max Q Clear Time (g_c+I1), s		22.9	7.8	2.1		31.2	2.0	2.3				
Green Ext Time (p_c), s		14.1	0.0	0.0		6.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			12.3									
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	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↖	↖	↖	↑↑	↑↑	↘
Traffic Volume (veh/h)	145	64	53	676	1227	230
Future Volume (veh/h)	145	64	53	676	1227	230
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	No	
Adj Sat Flow, veh/h/ln	1856	1856	1870	1870	1885	1885
Adj Flow Rate, veh/h	165	67	60	768	1394	184
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	2	2	1	1
Cap, veh/h	495	375	338	2395	1749	758
Arrive On Green	0.14	0.14	0.09	0.67	0.49	0.49
Sat Flow, veh/h	3428	1572	1781	3647	3676	1552
Grp Volume(v), veh/h	165	67	60	768	1394	184
Grp Sat Flow(s),veh/h/ln	1714	1572	1781	1777	1791	1552
Q Serve(g_s), s	2.6	2.1	0.8	5.5	19.9	4.2
Cycle Q Clear(g_c), s	2.6	2.1	0.8	5.5	19.9	4.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	495	375	338	2395	1749	758
V/C Ratio(X)	0.33	0.18	0.18	0.32	0.80	0.24
Avail Cap(c_a), veh/h	1290	740	433	2668	1834	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	18.5	9.5	4.1	13.1	9.1
Incr Delay (d2), s/veh	0.4	0.2	0.2	0.1	2.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.0	0.4	2.2	11.4	2.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.9	18.7	9.8	4.3	15.9	9.4
LnGrp LOS	C	B	A	A	B	A
Approach Vol, veh/h	232			828	1578	
Approach Delay, s/veh	22.4			4.7	15.1	
Approach LOS	C			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.4	35.4		14.4		46.7
Change Period (Y+Rc), s	5.6	* 5.5		5.6		* 5.5
Max Green Setting (Gmax), s	9.0	* 31		23.0		* 46
Max Q Clear Time (g_c+I1), s	2.8	21.9		4.6		7.5
Green Ext Time (p_c), s	0.0	7.9		0.7		9.9

Intersection Summary

HCM 6th Ctrl Delay	12.5
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.

West Harbor Amphitheater
7: Sampson Wy/Harbor Blvd & Miner St

2027 Thursday PM - With Project



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖	↑↑	↑↑	↗
Traffic Volume (veh/h)	442	4	15	299	665	624
Future Volume (veh/h)	442	4	15	299	665	624
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	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	497	2	17	336	747	463
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	873	455	303	1864	1334	978
Arrive On Green	0.25	0.25	0.03	0.52	0.37	0.37
Sat Flow, veh/h	3510	1610	1810	3705	3705	1562
Grp Volume(v), veh/h	497	2	17	336	747	463
Grp Sat Flow(s),veh/h/ln	1755	1610	1810	1805	1805	1562
Q Serve(g_s), s	6.1	0.0	0.3	2.5	8.1	7.9
Cycle Q Clear(g_c), s	6.1	0.0	0.3	2.5	8.1	7.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	873	455	303	1864	1334	978
V/C Ratio(X)	0.57	0.00	0.06	0.18	0.56	0.47
Avail Cap(c_a), veh/h	1805	882	535	2777	1783	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	12.7	8.8	6.4	12.4	5.1
Incr Delay (d2), s/veh	1.6	0.0	0.1	0.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	0.0	0.2	1.2	4.9	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.9	12.7	8.9	6.4	12.9	5.6
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	499			353	1210	
Approach Delay, s/veh	17.8			6.6	10.1	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.3	24.2			31.5	17.9
Change Period (Y+Rc), s	5.6	* 6			* 6	5.6
Max Green Setting (Gmax), s	8.0	* 24			* 38	25.4
Max Q Clear Time (g_c+I1), s	2.3	10.1			4.5	8.1
Green Ext Time (p_c), s	0.0	8.0			3.5	4.2

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.

Intersection

Intersection Delay, s/veh 13.3

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	0	0	0	4	0	30	0	294	0	427	227	0
Future Vol, veh/h	0	0	0	4	0	30	0	294	0	427	227	0
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	4	0	34	0	330	0	480	255	0
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	0	9.2	8.3	15.8
HCM LOS	-	A	A	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	12%	100%	0%	0%
Vol Thru, %	100%	100%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	0%	0%	0%	88%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	147	147	0	34	427	114	114
LT Vol	0	0	0	0	4	427	0	0
Through Vol	0	147	147	0	0	0	114	114
RT Vol	0	0	0	0	30	0	0	0
Lane Flow Rate	0	165	165	0	38	480	128	128
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0	0.241	0.163	0	0.064	0.713	0.172	0.111
Departure Headway (Hd)	5.246	5.246	3.542	6.648	6.006	5.349	4.847	3.142
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	685	1011	0	594	676	740	1136
Service Time	2.977	2.977	1.272	4.418	3.766	3.082	2.581	0.874
HCM Lane V/C Ratio	0	0.241	0.163	0	0.064	0.71	0.173	0.113
HCM Control Delay	8	9.6	7	9.4	9.2	20.3	8.6	6.3
HCM Lane LOS	N	A	A	N	A	C	A	A
HCM 95th-tile Q	0	0.9	0.6	0	0.2	6	0.6	0.4

Intersection						
Int Delay, s/veh	6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	204	96	6	158	75
Future Vol, veh/h	0	204	96	6	158	75
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	160	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	229	108	7	178	84

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	59	0	0	116
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	2.2
Pot Cap-1 Maneuver	0	1001	-	-	1485
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	1000	-	-	1484
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	5.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	1000	1484
HCM Lane V/C Ratio	-	-	0.229	0.12
HCM Control Delay (s)	-	-	9.7	7.8
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.4

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	24	0	31	0	69	51	14	67	0
Future Vol, veh/h	0	0	0	24	0	31	0	69	51	14	67	0
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	27	0	35	0	78	57	16	75	0
Number of Lanes	0	1	0	0	1	0	0	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	1
HCM Control Delay	0	7.9	7.7	7
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	44%	100%	0%	0%
Vol Thru, %	100%	31%	100%	0%	0%	100%	100%
Vol Right, %	0%	69%	0%	56%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	46	74	0	55	14	34	34
LT Vol	0	0	0	24	14	0	0
Through Vol	46	23	0	0	0	34	34
RT Vol	0	51	0	31	0	0	0
Lane Flow Rate	52	83	0	62	16	38	38
Geometry Grp	8	8	7	7	7	7	7
Degree of Util (X)	0.068	0.098	0	0.082	0.023	0.049	0.031
Departure Headway (Hd)	4.741	4.258	5.038	4.801	5.181	4.68	2.976
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	745	829	0	751	684	756	1177
Service Time	2.535	2.051	2.74	2.501	2.966	2.464	0.76
HCM Lane V/C Ratio	0.07	0.1	0	0.083	0.023	0.05	0.032
HCM Control Delay	7.9	7.5	7.7	7.9	8.1	7.7	5.9
HCM Lane LOS	A	A	N	A	A	A	A
HCM 95th-tile Q	0.2	0.3	0	0.3	0.1	0.2	0.1

Intersection												
Intersection Delay, s/veh	8.2											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗		↕			↕			↑	↗
Traffic Vol, veh/h	91	2	17	0	3	3	23	21	0	0	22	62
Future Vol, veh/h	91	2	17	0	3	3	23	21	0	0	22	62
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	106	2	20	0	3	3	27	24	0	0	26	72
Number of Lanes	1	1	1	0	2	0	0	2	0	0	1	1

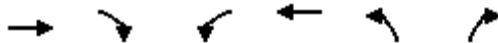
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	8.7	7.6	8.3	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	77%	0%	100%	0%	0%	0%	0%	0%	0%
Vol Thru, %	23%	100%	0%	100%	0%	100%	25%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	75%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	14	91	2	17	2	4	22	62
LT Vol	23	0	91	0	0	0	0	0	0
Through Vol	7	14	0	2	0	2	1	22	0
RT Vol	0	0	0	0	17	0	3	0	62
Lane Flow Rate	35	16	106	2	20	2	5	26	72
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.053	0.023	0.159	0.003	0.023	0.003	0.006	0.035	0.086
Departure Headway (Hd)	5.444	5.06	5.407	4.906	4.205	5.165	4.638	4.995	4.295
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	660	709	666	731	853	694	772	719	836
Service Time	3.161	2.777	3.124	2.622	1.921	2.889	2.362	2.71	2.009
HCM Lane V/C Ratio	0.053	0.023	0.159	0.003	0.023	0.003	0.006	0.036	0.086
HCM Control Delay	8.5	7.9	9.1	7.6	7	7.9	7.4	7.9	7.4
HCM Lane LOS	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.6	0	0.1	0	0	0.1	0.3

West Harbor Amphitheater
12: Miner St & 22nd St

2027 Thursday PM - With Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	101	15	6	78	17	26	64	4	10	50	352
Future Volume (veh/h)	255	101	15	6	78	17	26	64	4	10	50	352
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		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	293	116	6	7	90	3	30	74	2	11	57	89
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, %	0	0	0	0	0	0	0	0	0	1	1	1
Cap, veh/h	305	1164	60	27	488	16	96	832	22	40	332	281
Arrive On Green	0.17	0.33	0.33	0.01	0.14	0.14	0.05	0.23	0.23	0.02	0.18	0.18
Sat Flow, veh/h	1810	3491	179	1810	3565	118	1810	3589	97	1795	1885	1595
Grp Volume(v), veh/h	293	60	62	7	45	48	30	37	39	11	57	89
Grp Sat Flow(s),veh/h/ln	1810	1805	1865	1810	1805	1879	1810	1805	1881	1795	1885	1595
Q Serve(g_s), s	9.0	1.3	1.3	0.2	1.2	1.3	0.9	0.9	0.9	0.3	1.4	2.0
Cycle Q Clear(g_c), s	9.0	1.3	1.3	0.2	1.2	1.3	0.9	0.9	0.9	0.3	1.4	2.0
Prop In Lane	1.00		0.10	1.00		0.06	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	305	602	622	27	247	257	96	418	436	40	332	281
V/C Ratio(X)	0.96	0.10	0.10	0.26	0.18	0.19	0.31	0.09	0.09	0.27	0.17	0.32
Avail Cap(c_a), veh/h	305	1157	1196	259	1112	1158	259	679	708	257	709	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	12.8	12.8	27.2	21.3	21.3	25.4	16.8	16.8	26.8	19.6	11.3
Incr Delay (d2), s/veh	41.2	0.1	0.1	5.1	0.8	0.8	1.8	0.2	0.2	3.6	0.6	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(95%),veh/ln	11.4	0.9	0.9	0.2	1.0	1.0	0.7	0.6	0.7	0.3	1.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	13.0	13.0	32.3	22.1	22.1	27.3	17.0	17.0	30.4	20.2	12.9
LnGrp LOS	E	B	B	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		415			100			106			157	
Approach Delay, s/veh		49.1			22.8			19.9			16.8	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.4	14.6	9.0	15.8	5.4	25.6	5.9	18.9				
Change Period (Y+Rc), s	7.0	* 7	* 6	* 6	4.6	7.0	4.6	* 6				
Max Green Setting (Gmax), s	9.4	* 34	* 8	* 21	8.0	35.8	8.0	* 21				
Max Q Clear Time (g_c+I1), s	11.0	3.3	2.9	4.0	2.2	3.3	2.3	2.9				
Green Ext Time (p_c), s	0.0	1.0	0.0	1.0	0.0	1.3	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			35.3									
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	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↙	↑↑	↙↘	↙
Traffic Volume (vph)	299	69	75	376	64	90
Future Volume (vph)	299	69	75	376	64	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		4.0	5.0	4.2	4.2
Lane Util. Factor	0.95		1.00	0.95	0.97	1.00
Frbp, ped/bikes	1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3492		1787	3574	3502	1615
Flt Permitted	1.00		0.51	1.00	0.95	1.00
Satd. Flow (perm)	3492		966	3574	3502	1615
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	308	71	77	388	66	93
RTOR Reduction (vph)	35	0	0	0	0	65
Lane Group Flow (vph)	344	0	77	388	66	28
Confl. Peds. (#/hr)		4				
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	0%	0%	1%	1%	0%	0%
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	6		5	2	4	4 5
Permitted Phases			2			
Actuated Green, G (s)	22.4		26.8	23.0	5.2	13.2
Effective Green, g (s)	22.4		26.8	23.0	5.2	13.2
Actuated g/C Ratio	0.50		0.60	0.52	0.12	0.30
Clearance Time (s)	5.0		4.0	5.0	4.2	
Vehicle Extension (s)	6.9		3.0	6.6	6.7	
Lane Grp Cap (vph)	1753		650	1843	408	477
v/s Ratio Prot	0.10		c0.01	c0.11	c0.02	0.02
v/s Ratio Perm			0.06			
v/c Ratio	0.20		0.12	0.21	0.16	0.06
Uniform Delay, d1	6.1		3.7	5.9	17.7	11.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		0.1	0.2	0.6	0.2
Delay (s)	6.3		3.8	6.1	18.4	11.4
Level of Service	A		A	A	B	B
Approach Delay (s)	6.3			5.7	14.3	
Approach LOS	A			A	B	

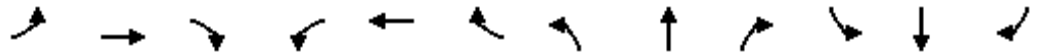
Intersection Summary

HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.20		
Actuated Cycle Length (s)	44.6	Sum of lost time (s)	13.2
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Future Sunday PM

West Harbor Amphitheater
1: Front St & SR-47 WB Ramps/WBCT Gate 2

2027 Sunday PM - With Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	344	806	30	3	6	1016	176	21	13	160	23
Future Volume (veh/h)	28	344	806	30	3	6	1016	176	21	13	160	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	1441	1441	1441	1159	1159	1159	1885	1885	1885	1752	1752	1752
Adj Flow Rate, veh/h	30	374	876	33	3	2	1104	191	16	14	174	16
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, %	31	31	31	50	50	50	1	1	1	10	10	10
Cap, veh/h	110	373	1253	246	185	123	1128	1357	113	78	398	36
Arrive On Green	0.08	0.26	0.26	0.12	0.29	0.29	0.32	0.41	0.41	0.05	0.13	0.13
Sat Flow, veh/h	1372	1441	2149	2141	649	432	3483	3342	277	1668	3076	279
Grp Volume(v), veh/h	30	374	876	33	0	5	1104	101	106	14	93	97
Grp Sat Flow(s),veh/h/ln	1372	1441	1074	1071	0	1081	1742	1791	1828	1668	1664	1692
Q Serve(g_s), s	2.4	30.0	30.0	1.6	0.0	0.4	36.3	4.1	4.2	0.9	6.0	6.1
Cycle Q Clear(g_c), s	2.4	30.0	30.0	1.6	0.0	0.4	36.3	4.1	4.2	0.9	6.0	6.1
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.15	1.00		0.17
Lane Grp Cap(c), veh/h	110	373	1253	246	0	308	1128	727	743	78	215	219
V/C Ratio(X)	0.27	1.00	0.70	0.13	0.00	0.02	0.98	0.14	0.14	0.18	0.43	0.44
Avail Cap(c_a), veh/h	249	373	1253	296	0	308	1128	727	743	303	309	314
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	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	50.1	42.9	17.0	46.1	0.0	29.7	38.7	21.6	21.7	53.0	46.5	46.6
Incr Delay (d2), s/veh	1.3	47.1	1.7	0.2	0.0	0.0	21.7	0.1	0.1	1.1	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	22.0	13.0	0.8	0.0	0.2	25.5	3.1	3.3	0.7	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	90.0	18.7	46.3	0.0	29.7	60.4	21.7	21.8	54.1	47.9	48.0
LnGrp LOS	D	F	B	D	A	C	E	C	C	D	D	D
Approach Vol, veh/h		1280			38			1311			204	
Approach Delay, s/veh		40.3			44.1			54.3			48.3	
Approach LOS		D			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	52.5	17.3	35.0	43.0	20.5	14.3	38.0				
Change Period (Y+Rc), s	* 5.5	* 5.5	4.0	5.0	* 5.5	* 5.5	5.0	* 5				
Max Green Setting (Gmax), s	* 21	* 38	16.0	30.0	* 38	* 22	21.0	* 25				
Max Q Clear Time (g_c+I1), s	2.9	6.2	3.6	32.0	38.3	8.1	4.4	2.4				
Green Ext Time (p_c), s	0.0	1.1	0.0	0.0	0.0	0.8	0.0	0.0				

Intersection Summary

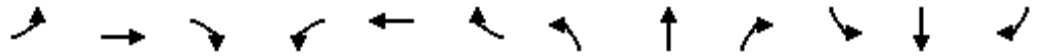
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

Notes

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

West Harbor Amphitheater
3: Harbor Blvd/Front St & Swinford St

2027 Sunday PM - With Project



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	257	752	9	432	0	565	663	21	179	572	75
Future Volume (veh/h)	13	257	752	9	432	0	565	663	21	179	572	75
Initial Q (Qb), veh	0	0	0	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		0.98
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	1885	1885	1885	1900	1900	1900	1885	1885	1885	1826	1826	1826
Adj Flow Rate, veh/h	14	282	388	10	475	0	621	729	21	197	629	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, %	1	1	1	0	0	0	1	1	1	5	5	5
Cap, veh/h	59	539	1307	44	534	590	623	1327	38	289	920	403
Arrive On Green	0.03	0.29	0.29	0.02	0.28	0.00	0.18	0.37	0.37	0.09	0.27	0.27
Sat Flow, veh/h	1795	1885	2812	1810	1900	1610	3483	3553	102	3374	3469	1521
Grp Volume(v), veh/h	14	282	388	10	475	0	621	367	383	197	629	22
Grp Sat Flow(s),veh/h/ln	1795	1885	1406	1810	1900	1610	1742	1791	1865	1687	1735	1521
Q Serve(g_s), s	0.7	11.7	1.3	0.5	22.2	0.0	16.5	15.0	15.0	5.3	15.1	0.8
Cycle Q Clear(g_c), s	0.7	11.7	1.3	0.5	22.2	0.0	16.5	15.0	15.0	5.3	15.1	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	59	539	1307	44	534	590	623	669	696	289	920	403
V/C Ratio(X)	0.24	0.52	0.30	0.23	0.89	0.00	1.00	0.55	0.55	0.68	0.68	0.05
Avail Cap(c_a), veh/h	193	539	1307	527	641	681	623	669	696	291	920	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	27.8	6.1	44.4	32.0	0.0	38.1	22.9	22.9	41.2	30.6	16.0
Incr Delay (d2), s/veh	4.2	3.6	0.6	2.5	12.9	0.0	35.2	3.2	3.1	6.3	4.1	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(95%),veh/ln	0.7	9.6	2.5	0.5	17.6	0.0	15.0	10.9	11.2	4.3	10.8	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	31.4	6.6	46.9	44.9	0.0	73.2	26.1	26.0	47.5	34.7	16.2
LnGrp LOS	D	C	A	D	D	A	E	C	C	D	C	B
Approach Vol, veh/h		684			485			1371			848	
Approach Delay, s/veh		17.7			44.9			47.4			37.2	
Approach LOS		B			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	40.0	8.3	32.5	22.0	30.0	8.7	32.1				
Change Period (Y+Rc), s	4.0	5.4	6.0	* 6	5.4	5.4	* 5.7	6.0				
Max Green Setting (Gmax), s	8.0	34.6	27.0	* 14	16.6	24.6	* 10	31.3				
Max Q Clear Time (g_c+I1), s	7.3	17.0	2.5	13.7	18.5	17.1	2.7	24.2				
Green Ext Time (p_c), s	0.0	7.3	0.0	0.4	0.0	2.5	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay	38.5
HCM 6th LOS	D

Notes

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

West Harbor Amphitheater
4: Harbor Blvd & 1st St

2027 Sunday PM - With Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	53	16	103	140	21	10	1096	42	5	1203	276
Future Volume (veh/h)	174	53	16	103	140	21	10	1096	42	5	1203	276
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		0.99
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	1841	1841	1841	1870	1870	1870	1900	1900	1900
Adj Flow Rate, veh/h	185	56	7	110	149	17	11	1166	43	5	1280	262
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	4	4	4	2	2	2	0	0	0
Cap, veh/h	228	209	26	204	189	22	200	2004	74	19	2234	982
Arrive On Green	0.13	0.13	0.13	0.12	0.12	0.12	0.57	0.57	0.57	0.01	0.62	0.62
Sat Flow, veh/h	1781	1628	203	1753	1622	185	336	3492	129	1810	3610	1587
Grp Volume(v), veh/h	185	0	63	110	0	166	11	593	616	5	1280	262
Grp Sat Flow(s),veh/h/ln	1781	0	1831	1753	0	1807	336	1777	1844	1810	1805	1587
Q Serve(g_s), s	11.6	0.0	3.6	6.8	0.0	10.3	2.3	24.6	24.6	0.3	24.1	8.7
Cycle Q Clear(g_c), s	11.6	0.0	3.6	6.8	0.0	10.3	21.2	24.6	24.6	0.3	24.1	8.7
Prop In Lane	1.00		0.11	1.00		0.10	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	228	0	235	204	0	210	200	1020	1058	19	2234	982
V/C Ratio(X)	0.81	0.00	0.27	0.54	0.00	0.79	0.05	0.58	0.58	0.27	0.57	0.27
Avail Cap(c_a), veh/h	356	0	366	366	0	377	200	1020	1058	126	2234	982
HCM Platoon Ratio	1.00	1.00	1.00	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	0.89	0.89	0.89	0.84	0.84	0.84
Uniform Delay (d), s/veh	48.8	0.0	45.3	47.9	0.0	49.4	20.7	15.7	15.7	56.5	12.9	10.0
Incr Delay (d2), s/veh	7.6	0.0	0.6	2.2	0.0	6.5	0.5	2.2	2.1	6.3	0.9	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(95%),veh/ln	9.5	0.0	3.0	5.6	0.0	8.7	0.4	14.9	15.3	0.3	13.9	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.4	0.0	45.9	50.1	0.0	55.9	21.2	17.8	17.8	62.8	13.8	10.6
LnGrp LOS	E	A	D	D	A	E	C	B	B	E	B	B
Approach Vol, veh/h		248			276			1220			1547	
Approach Delay, s/veh		53.7			53.6			17.8			13.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		76.1		20.1	5.2	70.9		18.8				
Change Period (Y+Rc), s		4.9		* 5.4	4.0	4.9		5.4				
Max Green Setting (Gmax), s		52.3		* 23	8.0	40.3		24.0				
Max Q Clear Time (g_c+I1), s		26.1		13.6	2.3	26.6		12.3				
Green Ext Time (p_c), s		18.9		0.6	0.0	9.9		0.9				
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.												

West Harbor Amphitheater
5: Harbor Blvd & 5th St

2027 Sunday PM - With Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	2	30	0	5	0	32	1014	2	0	1184	114
Future Volume (veh/h)	100	2	30	0	5	0	32	1014	2	0	1184	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		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			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	0	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	110	2	8	0	5	0	35	1114	1	0	1301	82
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, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	217	345	283	262	142	0	229	1852	807	0	1852	807
Arrive On Green	0.12	0.18	0.18	0.00	0.07	0.00	0.52	0.52	0.52	0.00	0.52	0.52
Sat Flow, veh/h	1810	1900	1559	1810	1900	0	395	3582	1561	0	3676	1560
Grp Volume(v), veh/h	110	2	8	0	5	0	35	1114	1	0	1301	82
Grp Sat Flow(s),veh/h/ln	1810	1900	1559	1810	1900	0	395	1791	1561	0	1791	1560
Q Serve(g_s), s	3.1	0.0	0.2	0.0	0.1	0.0	4.0	11.8	0.0	0.0	14.9	1.4
Cycle Q Clear(g_c), s	3.1	0.0	0.2	0.0	0.1	0.0	18.9	11.8	0.0	0.0	14.9	1.4
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	217	345	283	262	142	0	229	1852	807	0	1852	807
V/C Ratio(X)	0.51	0.01	0.03	0.00	0.04	0.00	0.15	0.60	0.00	0.00	0.70	0.10
Avail Cap(c_a), veh/h	268	942	773	506	949	0	241	1962	855	0	1962	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	18.1	18.2	0.0	23.2	0.0	17.1	9.1	6.3	0.0	9.9	6.7
Incr Delay (d2), s/veh	1.8	0.0	0.0	0.0	0.1	0.0	0.9	1.0	0.0	0.0	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	0.1	0.0	0.1	0.0	0.7	6.5	0.0	0.0	8.1	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	18.1	18.2	0.0	23.3	0.0	18.0	10.1	6.3	0.0	11.3	6.8
LnGrp LOS	C	B	B	A	C	A	B	B	A	A	B	A
Approach Vol, veh/h		120			5			1150			1383	
Approach Delay, s/veh		23.6			23.3			10.4			11.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		33.1	10.7	10.2		33.1	4.9	16.0				
Change Period (Y+Rc), s		* 5.2	* 4.2	* 6.2		* 5.2	* 4.2	* 6.2				
Max Green Setting (Gmax), s		* 30	* 8	* 27		* 30	* 8	* 27				
Max Q Clear Time (g_c+I1), s		16.9	5.1	2.1		20.9	0.0	2.2				
Green Ext Time (p_c), s		9.8	0.1	0.0		7.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			11.3									
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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	111	43	55	936	1031	171
Future Volume (veh/h)	111	43	55	936	1031	171
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	No	
Adj Sat Flow, veh/h/ln	1781	1781	1856	1856	1900	1900
Adj Flow Rate, veh/h	126	41	62	1064	1172	142
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	8	8	3	3	0	0
Cap, veh/h	501	381	381	2271	1591	690
Arrive On Green	0.15	0.15	0.10	0.64	0.44	0.44
Sat Flow, veh/h	3291	1510	1767	3618	3705	1566
Grp Volume(v), veh/h	126	41	62	1064	1172	142
Grp Sat Flow(s),veh/h/ln	1646	1510	1767	1763	1805	1566
Q Serve(g_s), s	1.8	1.1	0.8	8.4	14.6	3.0
Cycle Q Clear(g_c), s	1.8	1.1	0.8	8.4	14.6	3.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	501	381	381	2271	1591	690
V/C Ratio(X)	0.25	0.11	0.16	0.47	0.74	0.21
Avail Cap(c_a), veh/h	1390	790	496	2648	1744	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	15.6	8.0	4.9	12.6	9.4
Incr Delay (d2), s/veh	0.3	0.1	0.2	0.2	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.4	3.3	8.7	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.6	15.8	8.2	5.2	14.5	9.6
LnGrp LOS	C	B	A	A	B	A
Approach Vol, veh/h	167			1126	1314	
Approach Delay, s/veh	19.4			5.4	14.0	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.1	29.5		13.9		40.6
Change Period (Y+Rc), s	5.6	* 5.5		5.6		* 5.5
Max Green Setting (Gmax), s	9.0	* 26		23.0		* 41
Max Q Clear Time (g_c+I1), s	2.8	16.6		3.8		10.4
Green Ext Time (p_c), s	0.0	7.4		0.5		13.8

Intersection Summary

HCM 6th Ctrl Delay	10.6
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.

West Harbor Amphitheater
7: Sampson Wy/Harbor Blvd & Miner St

2027 Sunday PM - With Project



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↖	↖	↖	↑↑	↑↑	↘
Traffic Volume (veh/h)	573	13	25	429	603	456
Future Volume (veh/h)	573	13	25	429	603	456
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	No	
Adj Sat Flow, veh/h/ln	1870	1870	1856	1856	1885	1885
Adj Flow Rate, veh/h	659	6	29	493	693	350
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	3	3	1	1
Cap, veh/h	1034	557	316	1710	1176	988
Arrive On Green	0.30	0.30	0.05	0.48	0.33	0.33
Sat Flow, veh/h	3456	1585	1767	3618	3676	1553
Grp Volume(v), veh/h	659	6	29	493	693	350
Grp Sat Flow(s),veh/h/ln	1728	1585	1767	1763	1791	1553
Q Serve(g_s), s	8.9	0.1	0.5	4.5	8.7	5.8
Cycle Q Clear(g_c), s	8.9	0.1	0.5	4.5	8.7	5.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1034	557	316	1710	1176	988
V/C Ratio(X)	0.64	0.01	0.09	0.29	0.59	0.35
Avail Cap(c_a), veh/h	1633	832	487	2493	1626	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	11.3	10.4	8.3	15.0	4.8
Incr Delay (d2), s/veh	1.8	0.0	0.2	0.1	0.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.9	0.1	0.3	2.4	5.5	5.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.1	11.4	10.6	8.4	15.7	5.1
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	665			522	1043	
Approach Delay, s/veh	18.0			8.6	12.2	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.4	23.7			32.1	21.7
Change Period (Y+Rc), s	5.6	* 6			* 6	5.6
Max Green Setting (Gmax), s	8.0	* 24			* 38	25.4
Max Q Clear Time (g_c+I1), s	2.5	10.7			6.5	10.9
Green Ext Time (p_c), s	0.0	6.9			5.4	5.2

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	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	0	0	0	0	19	0	427	0	255	361	0
Future Vol, veh/h	0	0	0	0	0	19	0	427	0	255	361	0
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
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	0	0	0
Mvmt Flow	0	0	0	0	0	22	0	497	0	297	420	0
Number of Lanes	0	1	0	0	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	1	1
HCM Control Delay	0	8.9	9	10
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	100%	100%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	214	214	0	19	255	181	181
LT Vol	0	0	0	0	0	255	0	0
Through Vol	0	214	214	0	0	0	181	181
RT Vol	0	0	0	0	19	0	0	0
Lane Flow Rate	0	248	248	0	22	297	210	210
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0	0.359	0.239	0	0.036	0.447	0.287	0.187
Departure Headway (Hd)	5.213	5.213	3.459	6.692	5.941	5.426	4.924	3.2
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	0	693	1040	0	600	664	730	1112
Service Time	2.93	2.93	1.176	4.453	3.698	3.155	2.653	0.946
HCM Lane V/C Ratio	0	0.358	0.238	0	0.037	0.447	0.288	0.189
HCM Control Delay	7.9	10.8	7.3	9.5	8.9	12.5	9.6	6.7
HCM Lane LOS	N	B	A	N	A	B	A	A
HCM 95th-tile Q	0	1.6	0.9	0	0.1	2.3	1.2	0.7

Intersection						
Int Delay, s/veh	10					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕		↖	↕
Traffic Vol, veh/h	0	275	150	7	206	153
Future Vol, veh/h	0	275	150	7	206	153
Conflicting Peds, #/hr	0	0	0	240	240	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	160	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	7	7	0	0
Mvmt Flow	0	320	174	8	240	178

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	331	0	0	422
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	2.2
Pot Cap-1 Maneuver	0	671	-	-	1148
Stage 1	0	-	-	-	-
Stage 2	0	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	537	-	-	918
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	5.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	537	918
HCM Lane V/C Ratio	-	-	0.595	0.261
HCM Control Delay (s)	-	-	21.1	10.3
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	3.9	1

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	31	0	74	0	85	39	15	134	0
Future Vol, veh/h	0	0	0	31	0	74	0	85	39	15	134	0
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
Heavy Vehicles, %	0	0	0	0	0	0	9	9	9	0	0	0
Mvmt Flow	0	0	0	36	0	86	0	99	45	17	156	0
Number of Lanes	0	1	0	0	1	0	0	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	1	1
HCM Control Delay	0	8.5	8.4	7.4
HCM LOS	-	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	30%	100%	0%	0%
Vol Thru, %	100%	42%	100%	0%	0%	100%	100%
Vol Right, %	0%	58%	0%	70%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	57	67	0	105	15	67	67
LT Vol	0	0	0	31	15	0	0
Through Vol	57	28	0	0	0	67	67
RT Vol	0	39	0	74	0	0	0
Lane Flow Rate	66	78	0	122	17	78	78
Geometry Grp	8	8	7	7	7	7	7
Degree of Util (X)	0.097	0.106	0	0.164	0.026	0.107	0.07
Departure Headway (Hd)	5.295	4.888	5.319	4.84	5.449	4.946	3.238
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	678	734	0	742	659	727	1108
Service Time	3.017	2.61	3.045	2.56	3.166	2.663	0.954
HCM Lane V/C Ratio	0.097	0.106	0	0.164	0.026	0.107	0.07
HCM Control Delay	8.6	8.2	8	8.5	8.3	8.3	6.2
HCM Lane LOS	A	A	N	A	A	A	A
HCM 95th-tile Q	0.3	0.4	0	0.6	0.1	0.4	0.2

Intersection												
Intersection Delay, s/veh	8.4											
Intersection LOS	A											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗		↕			↕			↑	↗
Traffic Vol, veh/h	92	2	21	0	0	0	24	23	0	0	23	138
Future Vol, veh/h	92	2	21	0	0	0	24	23	0	0	23	138
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
Heavy Vehicles, %	10	10	10	0	0	0	0	0	0	0	0	0
Mvmt Flow	100	2	23	0	0	0	26	25	0	0	25	150
Number of Lanes	1	1	1	0	2	0	0	2	0	0	1	1

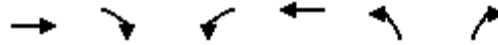
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	9.2	0	8.4	7.9
HCM LOS	A	-	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	76%	0%	100%	0%	0%	0%	0%	0%	0%
Vol Thru, %	24%	100%	0%	100%	0%	100%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	15	92	2	21	0	0	23	138
LT Vol	24	0	92	0	0	0	0	0	0
Through Vol	8	15	0	2	0	0	0	23	0
RT Vol	0	0	0	0	21	0	0	0	138
Lane Flow Rate	34	17	100	2	23	0	0	25	150
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.053	0.024	0.159	0.003	0.029	0	0	0.035	0.179
Departure Headway (Hd)	5.576	5.195	5.739	5.238	4.537	5.359	3.65	4.999	4.297
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	643	690	626	684	790	0	0	719	837
Service Time	3.301	2.921	3.465	2.964	2.262	3.093	1.384	2.713	2.012
HCM Lane V/C Ratio	0.053	0.025	0.16	0.003	0.029	0	0	0.035	0.179
HCM Control Delay	8.6	8	9.6	8	7.4	8.1	6.4	7.9	7.9
HCM Lane LOS	A	A	A	A	A	N	N	A	A
HCM 95th-tile Q	0.2	0.1	0.6	0	0.1	0	0	0.1	0.6

West Harbor Amphitheater
12: Miner St & 22nd St

2027 Sunday PM - With Project

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	370	101	31	17	139	21	34	67	12	16	56	232
Future Volume (veh/h)	370	101	31	17	139	21	34	67	12	16	56	232
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		0.98	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	1856	1856	1856	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	435	119	17	20	164	11	40	79	3	19	66	42
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, %	3	3	3	2	2	2	0	0	0	0	0	0
Cap, veh/h	476	1278	179	66	491	33	112	698	26	64	285	237
Arrive On Green	0.27	0.41	0.41	0.04	0.15	0.15	0.06	0.20	0.20	0.04	0.15	0.15
Sat Flow, veh/h	1767	3099	434	1781	3376	224	1810	3544	134	1810	1900	1576
Grp Volume(v), veh/h	435	67	69	20	86	89	40	40	42	19	66	42
Grp Sat Flow(s),veh/h/ln	1767	1763	1771	1781	1777	1824	1810	1805	1873	1810	1900	1576
Q Serve(g_s), s	16.6	1.6	1.7	0.8	3.0	3.1	1.5	1.3	1.3	0.7	2.1	1.3
Cycle Q Clear(g_c), s	16.6	1.6	1.7	0.8	3.0	3.1	1.5	1.3	1.3	0.7	2.1	1.3
Prop In Lane	1.00		0.25	1.00		0.12	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	476	727	730	66	258	265	112	355	369	64	285	237
V/C Ratio(X)	0.91	0.09	0.09	0.30	0.33	0.34	0.36	0.11	0.11	0.30	0.23	0.18
Avail Cap(c_a), veh/h	492	1159	1164	204	877	900	208	544	564	208	573	475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	12.5	12.5	32.7	26.7	26.8	31.4	23.0	23.0	32.8	26.1	15.6
Incr Delay (d2), s/veh	21.2	0.1	0.1	2.6	1.7	1.7	1.9	0.3	0.3	2.6	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.5	1.1	1.2	0.7	2.5	2.6	1.2	1.0	1.0	0.6	1.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	12.6	12.6	35.3	28.4	28.4	33.3	23.3	23.3	35.3	27.1	16.5
LnGrp LOS	D	B	B	D	C	C	C	C	C	D	C	B
Approach Vol, veh/h		571			195			122			127	
Approach Delay, s/veh		38.0			29.1			26.6			24.8	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.8	17.1	10.3	16.5	7.2	35.7	7.1	19.7				
Change Period (Y+Rc), s	7.0	* 7	* 6	* 6	4.6	7.0	4.6	* 6				
Max Green Setting (Gmax), s	19.4	* 34	* 8	* 21	8.0	45.8	8.0	* 21				
Max Q Clear Time (g_c+I1), s	18.6	5.1	3.5	4.1	2.8	3.7	2.7	3.3				
Green Ext Time (p_c), s	0.1	2.0	0.0	0.7	0.0	1.6	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			33.3									
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.												



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↖↖	↖
Traffic Volume (vph)	287	64	90	390	77	207
Future Volume (vph)	287	64	90	390	77	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		4.0	5.0	4.2	4.2
Lane Util. Factor	0.95		1.00	0.95	0.97	1.00
Frbp, ped/bikes	0.99		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.97		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3489		1770	3539	3367	1553
Flt Permitted	1.00		0.50	1.00	0.95	1.00
Satd. Flow (perm)	3489		928	3539	3367	1553
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	302	67	95	411	81	218
RTOR Reduction (vph)	36	0	0	0	0	140
Lane Group Flow (vph)	333	0	95	411	81	78
Confl. Peds. (#/hr)		13				
Confl. Bikes (#/hr)		2				2
Heavy Vehicles (%)	0%	0%	2%	2%	4%	4%
Turn Type	NA		pm+pt	NA	Prot	pt+ov
Protected Phases	6		5	2	4	4 5
Permitted Phases			2			
Actuated Green, G (s)	22.1		28.7	23.6	8.0	17.3
Effective Green, g (s)	22.1		28.7	23.6	8.0	17.3
Actuated g/C Ratio	0.46		0.59	0.49	0.17	0.36
Clearance Time (s)	5.0		4.0	5.0	4.2	
Vehicle Extension (s)	6.9		3.0	6.6	6.7	
Lane Grp Cap (vph)	1593		639	1725	556	555
v/s Ratio Prot	0.10		0.02	c0.12	0.02	c0.05
v/s Ratio Perm			0.07			
v/c Ratio	0.21		0.15	0.24	0.15	0.14
Uniform Delay, d1	7.9		4.3	7.2	17.3	10.5
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2		0.1	0.2	0.4	0.4
Delay (s)	8.1		4.4	7.4	17.7	10.9
Level of Service	A		A	A	B	B
Approach Delay (s)	8.1			6.8	12.7	
Approach LOS	A			A	B	

Intersection Summary

HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.23		
Actuated Cycle Length (s)	48.4	Sum of lost time (s)	13.2
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			