

APPENDIX L
SYNCHRO/ HCM OUTPUT



FUTURE YEAR 2021 TRAFFIC CONDITIONS

HCM 6th Signalized Intersection Summary 5: SR 31 & Bayshore Rd

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	290	250	260	620	770	250
Future Volume (veh/h)	290	250	260	620	770	250
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1752	1752
Adj Flow Rate, veh/h	312	0	280	667	828	269
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7	7	10	10
Cap, veh/h	338		303	1256	968	821
Arrive On Green	0.20	0.00	0.10	0.70	0.55	0.55
Sat Flow, veh/h	1711	1522	1711	1796	1752	1485
Grp Volume(v), veh/h	312	0	280	667	828	269
Grp Sat Flow(s),veh/h/ln	1711	1522	1711	1796	1752	1485
Q Serve(g_s), s	24.3	0.0	11.7	24.1	54.3	13.4
Cycle Q Clear(g_c), s	24.3	0.0	11.7	24.1	54.3	13.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	338		303	1256	968	821
V/C Ratio(X)	0.92		0.92	0.53	0.86	0.33
Avail Cap(c_a), veh/h	410		330	1371	1053	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.4	0.0	34.0	9.7	25.7	16.6
Incr Delay (d2), s/veh	23.9	0.0	29.4	1.6	9.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	18.1	0.0	17.4	14.0	31.0	8.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	77.3	0.0	63.4	11.4	35.3	17.6
LnGrp LOS	E		E	B	D	B
Approach Vol, veh/h	312	A		947	1097	
Approach Delay, s/veh	77.3			26.7	30.9	
Approach LOS	E			C	C	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	19.9	82.5			102.3	33.3
Change Period (Y+Rc), s	6.0	7.5			7.5	6.5
Max Green Setting (Gmax), s	16.0	81.5			103.5	32.5
Max Q Clear Time (g_c+I1), s	13.7	56.3			26.1	26.3
Green Ext Time (p_c), s	0.2	18.6			21.0	0.5
Intersection Summary						
HCM 6th Ctrl Delay			35.4			
HCM 6th LOS			D			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

Future 2021 Traffic Conditions with MPD, with Existing Intersection Configuration - PM Peak Hour

Lanes, Volumes, Timings
7: SR 31 & Old Bayshore Rd/North River Rd

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	10	20	80	10	70	30	740	130	80	780	20
Future Volume (vph)	20	10	20	80	10	70	30	740	130	80	780	20
Satd. Flow (prot)	0	1545	0	0	1586	0	1656	1743	1482	1583	1660	0
Flt Permitted		0.980			0.976		0.950			0.950		
Satd. Flow (perm)	0	1545	0	0	1586	0	1656	1743	1482	1583	1660	0
Lane Group Flow (vph)	0	55	0	0	178	0	33	822	144	89	889	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Control Type: Unsignalized												
Intersection Capacity Utilization 68.7% ICU Level of Service C												
Analysis Period (min) 15												

Future 2021 Traffic Conditions with MPD, with Existing Intersection Configuration - PM Peak Hour

HCM 6th TWSC
7: SR 31 & Old Bayshore Rd/North River Rd

Intersection												
Int Delay, s/veh	114.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	10	20	80	10	70	30	740	130	80	780	20
Future Vol, veh/h	20	10	20	80	10	70	30	740	130	80	780	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	600	-	575	600	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	14	14	14	10	10	10	9	9	9	14	14	14
Mvmt Flow	22	11	22	89	11	78	33	822	144	89	867	22
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2061	2088	878	1961	1955	822	889	0	0	966	0	0
Stage 1	1056	1056	-	888	888	-	-	-	-	-	-	-
Stage 2	1005	1032	-	1073	1067	-	-	-	-	-	-	-
Critical Hdwy	7.24	6.64	6.34	7.2	6.6	6.3	4.19	-	-	4.24	-	-
Critical Hdwy Stg 1	6.24	5.64	-	6.2	5.6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.24	5.64	-	6.2	5.6	-	-	-	-	-	-	-
Follow-up Hdwy	3.626	4.126	3.426	3.59	4.09	3.39	2.281	-	-	2.326	-	-
Pot Cap-1 Maneuver	37	49	330	~ 45	61	362	734	-	-	667	-	-
Stage 1	259	288	-	328	351	-	-	-	-	-	-	-
Stage 2	277	295	-	257	289	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 21	41	330	~ 29	51	362	734	-	-	667	-	-
Mov Cap-2 Maneuver	~ 21	41	-	~ 29	51	-	-	-	-	-	-	-
Stage 1	247	250	-	313	335	-	-	-	-	-	-	-
Stage 2	201	282	-	198	251	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s\$	435.3		\$ 1285.7		0.3		1					
HCM LOS	F		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	734	-	-	40	51	667	-	-				
HCM Lane V/C Ratio	0.045	-	-	1.389	3.486	0.133	-	-				
HCM Control Delay (s)	10.1	-	-	\$ 435.3	\$ 1285.7	11.2	-	-				
HCM Lane LOS	B	-	-	F	F	B	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	5.6	19.3	0.5	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Future 2021 Traffic Conditions with MPD, with Existing Intersection Configuration - PM Peak Hour

HCM 6th Signalized Intersection Summary 7: SR 31 & Old Bayshore Rd/North River Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	10	20	80	10	70	30	740	130	80	780	20
Future Volume (veh/h)	20	10	20	80	10	70	30	740	130	80	780	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1693	1693	1693	1752	1752	1752	1767	1767	1767	1693	1693	1693
Adj Flow Rate, veh/h	22	11	22	89	11	78	33	822	144	89	867	22
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	14	14	14	10	10	10	9	9	9	14	14	14
Cap, veh/h	129	66	86	165	25	93	222	993	841	280	961	24
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.03	0.56	0.56	0.06	0.58	0.58
Sat Flow, veh/h	429	456	589	646	169	636	1682	1767	1497	1612	1643	42
Grp Volume(v), veh/h	55	0	0	178	0	0	33	822	144	89	0	889
Grp Sat Flow(s),veh/h/ln	1474	0	0	1451	0	0	1682	1767	1497	1612	0	1685
Q Serve(g_s), s	0.0	0.0	0.0	6.6	0.0	0.0	0.6	29.0	3.5	1.7	0.0	35.3
Cycle Q Clear(g_c), s	2.3	0.0	0.0	9.0	0.0	0.0	0.6	29.0	3.5	1.7	0.0	35.3
Prop In Lane	0.40		0.40	0.50		0.44	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	281	0	0	282	0	0	222	993	841	280	0	985
V/C Ratio(X)	0.20	0.00	0.00	0.63	0.00	0.00	0.15	0.83	0.17	0.32	0.00	0.90
Avail Cap(c_a), veh/h	315	0	0	317	0	0	277	2648	2244	296	0	2525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.8	0.0	0.0	31.4	0.0	0.0	14.2	13.6	8.1	12.5	0.0	13.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	3.3	0.0	0.0	0.3	1.8	0.1	0.6	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	0.0	6.0	0.0	0.0	0.4	13.4	1.5	0.9	0.0	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.1	0.0	0.0	34.8	0.0	0.0	14.5	15.5	8.2	13.2	0.0	17.3
LnGrp LOS	C	A	A	C	A	A	B	B	A	B	A	B
Approach Vol, veh/h		55			178			999			978	
Approach Delay, s/veh		29.1			34.8			14.4			16.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	48.7		17.1	8.5	50.5		17.1				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	114.0		13.0	5.0	114.0		13.0				
Max Q Clear Time (g_c+I1), s	3.7	31.0		4.3	2.6	37.3		11.0				
Green Ext Time (p_c), s	0.0	6.7		0.1	0.0	7.2		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				17.5								
HCM 6th LOS				B								

Future 2021 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 116: SR 31 & Shirley Ln/Project Entrance

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	118	0	8	10	806	95	10	10	705
Future Volume (veh/h)	10	0	10	118	0	8	10	806	95	10	10	705
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	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	1618	1618	1618		1633	1633
Adj Flow Rate, veh/h	11	0	11	128	0	9	11	876	103		11	766
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
Percent Heavy Veh, %	2	2	2	2	2	2	19	19	19		18	18
Cap, veh/h	266	0	188	264	0	188	281	966	819		197	975
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.02	0.60	0.60		0.02	0.60
Sat Flow, veh/h	1406	0	1585	1404	0	1585	1541	1618	1372		1555	1633
Grp Volume(v), veh/h	11	0	11	128	0	9	11	876	103		11	766
Grp Sat Flow(s),veh/h/ln	1406	0	1585	1404	0	1585	1541	1618	1372		1555	1633
Q Serve(g_s), s	0.5	0.0	0.4	6.0	0.0	0.3	0.2	32.3	2.2		0.2	24.2
Cycle Q Clear(g_c), s	0.8	0.0	0.4	6.5	0.0	0.3	0.2	32.3	2.2		0.2	24.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	266	0	188	264	0	188	281	966	819		197	975
V/C Ratio(X)	0.04	0.00	0.06	0.48	0.00	0.05	0.04	0.91	0.13		0.06	0.79
Avail Cap(c_a), veh/h	285	0	210	283	0	210	410	1334	1131		327	1346
HCM Platoon Ratio	1.00	1.00	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
Uniform Delay (d), s/veh	26.9	0.0	26.6	29.4	0.0	26.5	9.4	12.0	6.0		12.9	10.4
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.4	0.0	0.1	0.1	7.1	0.1		0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.3	3.7	0.0	0.2	0.1	13.6	0.7		0.1	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	26.7	30.8	0.0	26.6	9.5	19.2	6.0		13.0	12.5
LnGrp LOS	C	A	C	C	A	C	A	B	A		B	B
Approach Vol, veh/h	22			137			990			788		
Approach Delay, s/veh	26.8			30.5			17.7			12.4		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	46.6		14.1	7.3	46.6		14.1				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	7.0	56.0		9.0	7.0	56.0		9.0				
Max Q Clear Time (g_c+I1), s	2.2	34.3		2.8	2.2	26.2		8.5				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	5.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				16.6								
HCM 6th LOS				B								
Notes												
User approved ignoring U-Turning movement.												

Future 2021 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 116: SR 31 & Shirley Ln/Project Entrance

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	10
Future Volume (veh/h)	10
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1633
Adj Flow Rate, veh/h	11
Peak Hour Factor	0.92
Percent Heavy Veh, %	18
Cap, veh/h	826
Arrive On Green	0.60
Sat Flow, veh/h	1384
Grp Volume(v), veh/h	11
Grp Sat Flow(s),veh/h/ln	1384
Q Serve(g_s), s	0.2
Cycle Q Clear(g_c), s	0.2
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	826
V/C Ratio(X)	0.01
Avail Cap(c_a), veh/h	1141
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	5.6
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	5.6
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Lanes, Volumes, Timings
120: SR 31 & Fox Hill Rd/Project Entrance

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	0	0	18	10	720	105	10	715	10
Future Volume (vph)	0	0	20	0	0	18	10	720	105	10	715	10
Satd. Flow (prot)	0	0	1611	0	0	1611	1517	1597	1357	1530	1610	1369
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	1517	1597	1357	1530	1610	1369
Lane Group Flow (vph)	0	0	22	0	0	20	11	783	114	11	777	11
Sign Control	Stop			Stop			Free			Free		
Intersection Summary												
Control Type: Unsignalized												
Intersection Capacity Utilization 47.9%						ICU Level of Service A						
Analysis Period (min) 15												

HCM 6th TWSC
120: SR 31 & Fox Hill Rd/Project Entrance

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗	↗	↗	↗	↗	↗	↗
Traffic Vol, veh/h	0	0	20	0	0	18	10	720	105	10	715	10
Future Vol, veh/h	0	0	20	0	0	18	10	720	105	10	715	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	175	-	500	500	-	175
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	19	19	19	18	18	18
Mvmt Flow	0	0	22	0	0	20	11	783	114	11	777	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	777	-	-	783	788	0	0	897	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.22	-	-	6.22	4.29	-	-	4.28	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.318	-	-	3.318	2.371	-	-	2.362	-	-
Pot Cap-1 Maneuver	0	0	397	0	0	394	761	-	-	694	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	397	-	-	394	761	-	-	694	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.6		14.6		0.1		0.1					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	761	-	-	397	394	694	-	-				
HCM Lane V/C Ratio	0.014	-	-	0.055	0.05	0.016	-	-				
HCM Control Delay (s)	9.8	-	-	14.6	14.6	10.3	-	-				
HCM Lane LOS	A	-	-	B	B	B	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.2	0	-	-				

Future 2021 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

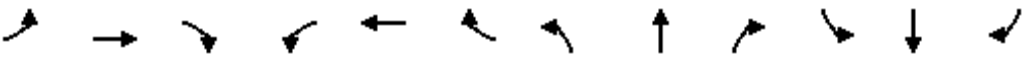
HCM 6th Signalized Intersection Summary 123: SR 31 & Busbee Ln/Project Entrance

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	118	0	8	10	633	95	10	607	10
Future Volume (veh/h)	10	0	10	118	0	8	10	633	95	10	607	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1618	1618	1618	1633	1633	1633
Adj Flow Rate, veh/h	11	0	11	128	0	9	11	688	103	11	660	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	19	19	19	18	18	18
Cap, veh/h	309	0	195	308	0	195	276	815	691	248	823	697
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.01	0.50	0.50	0.01	0.50	0.50
Sat Flow, veh/h	1406	0	1585	1404	0	1585	1541	1618	1372	1555	1633	1384
Grp Volume(v), veh/h	11	0	11	128	0	9	11	688	103	11	660	11
Grp Sat Flow(s),veh/h/ln	1406	0	1585	1404	0	1585	1541	1618	1372	1555	1633	1384
Q Serve(g_s), s	0.3	0.0	0.3	4.4	0.0	0.3	0.2	18.4	2.0	0.2	16.9	0.2
Cycle Q Clear(g_c), s	0.6	0.0	0.3	4.7	0.0	0.3	0.2	18.4	2.0	0.2	16.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	309	0	195	308	0	195	276	815	691	248	823	697
V/C Ratio(X)	0.04	0.00	0.06	0.42	0.00	0.05	0.04	0.84	0.15	0.04	0.80	0.02
Avail Cap(c_a), veh/h	501	0	411	499	0	411	408	1744	1478	381	1760	1491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	0.0	19.4	21.5	0.0	19.4	8.8	10.7	6.7	9.3	10.4	6.2
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.9	0.0	0.1	0.1	2.5	0.1	0.1	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.2	2.5	0.0	0.2	0.1	7.2	0.6	0.1	6.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.7	0.0	19.5	22.4	0.0	19.5	8.8	13.2	6.8	9.4	12.2	6.2
LnGrp LOS	B	A	B	C	A	B	A	B	A	A	B	A
Approach Vol, veh/h	22				137				802			
Approach Delay, s/veh	19.6				22.2				12.3			
Approach LOS	B				C				B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	31.3		12.2	6.7	31.3		12.2				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	5.0	54.0		13.0	5.0	54.0		13.0				
Max Q Clear Time (g_c+I1), s	2.2	20.4		2.6	2.2	18.9		6.7				
Green Ext Time (p_c), s	0.0	4.9		0.0	0.0	4.3		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	13.2											
HCM 6th LOS	B											

Future 2021 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

FUTURE YEAR 2026 TRAFFIC CONDITIONS

HCM 6th Signalized Intersection Summary 73: I75 West Ramps & Bayshore Rd

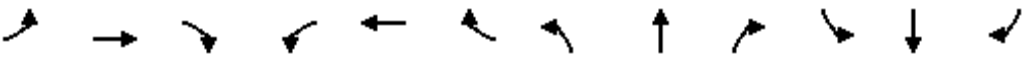
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖		↗
Traffic Volume (veh/h)	0	1000	1160	190	2110	0	0	0	0	130	0	70
Future Volume (veh/h)	0	1000	1160	190	2110	0	0	0	0	130	0	70
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1811	1811	1767	1767	0				1678	0	1678
Adj Flow Rate, veh/h	0	1087	0	207	2293	0				141	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	6	6	9	9	0				15	0	15
Cap, veh/h	0	1841		238	2495	0				169	0	
Arrive On Green	0.00	0.54	0.00	0.28	1.00	0.00				0.11	0.00	0.00
Sat Flow, veh/h	0	3532	1535	1682	3445	0				1598	0	1422
Grp Volume(v), veh/h	0	1087	0	207	2293	0				141	0	0
Grp Sat Flow(s),veh/h/ln	0	1721	1535	1682	1678	0				1598	0	1422
Q Serve(g_s), s	0.0	19.3	0.0	10.5	0.0	0.0				7.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	19.3	0.0	10.5	0.0	0.0				7.8	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1841		238	2495	0				169	0	
V/C Ratio(X)	0.00	0.59		0.87	0.92	0.00				0.84	0.00	
Avail Cap(c_a), veh/h	0	1841		355	2495	0				169	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	14.2	0.0	31.5	0.0	0.0				39.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	1.5	0.7	0.0				27.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.8	0.0	4.4	0.5	0.0				7.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.6	0.0	33.0	0.7	0.0				67.1	0.0	0.0
LnGrp LOS	A	B		C	A	A				E	A	
Approach Vol, veh/h		1087	A		2500						141	A
Approach Delay, s/veh		15.6			3.4						67.1	
Approach LOS		B			A						E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		74.0			18.7	55.3		16.0				
Change Period (Y+Rc), s		7.1			6.0	7.1		6.5				
Max Green Setting (Gmax), s		66.9			19.0	41.9		9.5				
Max Q Clear Time (g_c+I1), s		2.0			12.5	21.3		9.8				
Green Ext Time (p_c), s		57.6			0.3	12.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			9.4									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

HCM 6th Signalized Intersection Summary 76: I75 East Ramps & Bayshore Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 		  					
Traffic Volume (veh/h)	190	940	0	0	820	80	1480	0	290	0	0	0
Future Volume (veh/h)	190	940	0	0	820	80	1480	0	290	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1737	1737	0	0	1722	1722	1678	0	1678			
Adj Flow Rate, veh/h	209	1033	0	0	901	0	1626	0	0			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	11	11	0	0	12	12	15	0	15			
Cap, veh/h	221	1610	0	0	942		1627	0				
Arrive On Green	0.27	0.98	0.00	0.00	0.29	0.00	0.36	0.00	0.00			
Sat Flow, veh/h	1654	3387	0	0	3358	1459	4506	0	1422			
Grp Volume(v), veh/h	209	1033	0	0	901	0	1626	0	0			
Grp Sat Flow(s),veh/h/ln	1654	1650	0	0	1636	1459	1502	0	1422			
Q Serve(g_s), s	11.2	1.8	0.0	0.0	24.4	0.0	32.5	0.0	0.0			
Cycle Q Clear(g_c), s	11.2	1.8	0.0	0.0	24.4	0.0	32.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	221	1610	0	0	942		1627	0				
V/C Ratio(X)	0.95	0.64	0.00	0.00	0.96		1.00	0.00				
Avail Cap(c_a), veh/h	221	1610	0	0	942		1627	0				
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	32.7	0.6	0.0	0.0	31.5	0.0	28.7	0.0	0.0			
Incr Delay (d2), s/veh	36.6	1.4	0.0	0.0	20.6	0.0	22.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	9.1	1.0	0.0	0.0	16.9	0.0	20.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.3	2.0	0.0	0.0	52.1	0.0	50.9	0.0	0.0			
LnGrp LOS	E	A	A	A	D		D	A				
Approach Vol, veh/h	1242			901			1626			A		
Approach Delay, s/veh	13.3			52.1			50.9					
Approach LOS	B			D			D					
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	18.0	33.0	39.0		51.0							
Change Period (Y+Rc), s	6.0	7.1	6.5		7.1							
Max Green Setting (Gmax), s	12.0	25.9	32.5		43.9							
Max Q Clear Time (g_c+I1), s	13.2	26.4	34.5		3.8							
Green Ext Time (p_c), s	0.0	0.0	0.0		16.3							
Intersection Summary												
HCM 6th Ctrl Delay	38.8											
HCM 6th LOS	D											
Notes												

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 27: I75 West Ramps & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↗	↘↘↘	↑↑↑					↘↘		↗
Traffic Volume (veh/h)	0	1580	200	1000	1300	0	0	0	0	350	0	250
Future Volume (veh/h)	0	1580	200	1000	1300	0	0	0	0	350	0	250
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1841	1841	1811	1811	0				1796	0	1796
Adj Flow Rate, veh/h	0	1699	0	1075	1398	0				376	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93				0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	6	6	0				7	0	7
Cap, veh/h	0	2211		1160	3652	0				433	0	
Arrive On Green	0.00	0.44	0.00	0.48	1.00	0.00				0.13	0.00	0.00
Sat Flow, veh/h	0	5191	1560	4864	5107	0				3319	0	1522
Grp Volume(v), veh/h	0	1699	0	1075	1398	0				376	0	0
Grp Sat Flow(s),veh/h/ln	0	1675	1560	1621	1648	0				1659	0	1522
Q Serve(g_s), s	0.0	34.3	0.0	24.9	0.0	0.0				13.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	34.3	0.0	24.9	0.0	0.0				13.3	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2211		1160	3652	0				433	0	
V/C Ratio(X)	0.00	0.77		0.93	0.38	0.00				0.87	0.00	
Avail Cap(c_a), veh/h	0	2211		1160	3652	0				542	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.75	0.75	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	28.4	0.0	30.4	0.0	0.0				51.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.6	0.0	10.0	0.2	0.0				10.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	19.5	0.0	11.6	0.1	0.0				10.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	31.1	0.0	40.4	0.2	0.0				61.3	0.0	0.0
LnGrp LOS	A	C		D	A	A				E	A	
Approach Vol, veh/h		1699	A		2473						376	A
Approach Delay, s/veh		31.1			17.7						61.3	
Approach LOS		C			B						E	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		96.3			36.3	60.0		23.7				
Change Period (Y+Rc), s		* 7.7			7.7	7.2		8.0				
Max Green Setting (Gmax), s		* 85			24.7	52.8		19.6				
Max Q Clear Time (g_c+I1), s		2.0			26.9	36.3		15.3				
Green Ext Time (p_c), s		32.5			0.0	13.9		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			26.3									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

24: I75 East Ramps & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  					 		   			
Traffic Volume (veh/h)	360	1570	0	0	1970	450	330	0	1570	0	0	0
Future Volume (veh/h)	360	1570	0	0	1970	450	330	0	1570	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1811	1811	0	1737	1737	1737	1796	0	1796			
Adj Flow Rate, veh/h	396	1725	0	0	2165	0	363	0	1725			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	6	6	0	11	11	11	7	0	7			
Cap, veh/h	418	1825	0	331	3386		830	0	1754			
Arrive On Green	0.17	0.49	0.00	0.00	0.43	0.00	0.25	0.00	0.25			
Sat Flow, veh/h	3346	5107	0	1654	7921	1472	3319	0	3897			
Grp Volume(v), veh/h	396	1725	0	0	2165	0	363	0	1725			
Grp Sat Flow(s),veh/h/ln	1673	1648	0	1654	1320	1472	1659	0	974			
Q Serve(g_s), s	14.1	39.8	0.0	0.0	25.8	0.0	11.1	0.0	30.0			
Cycle Q Clear(g_c), s	14.1	39.8	0.0	0.0	25.8	0.0	11.1	0.0	30.0			
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	418	1825	0	331	3386		830	0	1754			
V/C Ratio(X)	0.95	0.95	0.00	0.00	0.64		0.44	0.00	0.98			
Avail Cap(c_a), veh/h	418	1825	0	331	3386		830	0	1754			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.58	0.58	0.00	0.00	0.79	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	49.6	29.4	0.0	0.0	27.1	0.0	37.9	0.0	32.6			
Incr Delay (d2), s/veh	21.2	7.5	0.0	0.0	0.7	0.0	0.1	0.0	17.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	9.9	19.1	0.0	0.0	11.9	0.0	8.0	0.0	32.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	36.9	0.0	0.0	27.8	0.0	38.0	0.0	50.2			
LnGrp LOS	E	D	A	A	C		D	A	D			
Approach Vol, veh/h	2121			2165			2088					
Approach Delay, s/veh	43.3			27.8			48.1					
Approach LOS	D			C			D					
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	23.0	60.0		37.0	30.0	53.0						
Change Period (Y+Rc), s	8.0	8.7		7.0	6.0	8.7						
Max Green Setting (Gmax), s	15.0	51.3		30.0	24.0	44.3						
Max Q Clear Time (g_c+I1), s	16.1	27.8		32.0	0.0	41.8						
Green Ext Time (p_c), s	0.0	21.5		0.0	0.0	2.4						
Intersection Summary												
HCM 6th Ctrl Delay	39.6											
HCM 6th LOS	D											
Notes												

HCM 6th Signalized Intersection Summary 30: Orange River Blvd/Loiuse St & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	2640	630	180	1520	10	520	20	210	40	10	60
Future Volume (veh/h)	50	2640	630	180	1520	10	520	20	210	40	10	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1722	1722	1722	1693	1693	1693	1722	1722	1722	1900	1900	1900
Adj Flow Rate, veh/h	53	2809	0	191	1617	11	568	0	223	43	11	64
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, %	12	12	12	14	14	14	12	12	12	0	0	0
Cap, veh/h	79	2839		292	3135	21	658	0	331	103	109	170
Arrive On Green	0.06	0.64	0.00	0.09	0.52	0.52	0.13	0.00	0.13	0.06	0.06	0.06
Sat Flow, veh/h	1640	6165	0	3127	6011	41	4920	0	1459	1810	1900	1610
Grp Volume(v), veh/h	53	2809	0	191	1175	453	568	0	223	43	11	64
Grp Sat Flow(s),veh/h/ln	1640	1481	0	1564	1456	1685	1640	0	1459	1810	1900	1610
Q Serve(g_s), s	3.8	55.9	0.0	7.1	21.1	21.1	13.6	0.0	5.5	2.8	0.7	4.4
Cycle Q Clear(g_c), s	3.8	55.9	0.0	7.1	21.1	21.1	13.6	0.0	5.5	2.8	0.7	4.4
Prop In Lane	1.00		0.00	1.00		0.02	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	2839		292	2277	879	658	0	331	103	109	170
V/C Ratio(X)	0.67	0.99		0.66	0.52	0.52	0.86	0.00	0.67	0.42	0.10	0.38
Avail Cap(c_a), veh/h	123	2839		292	2277	879	718	0	349	106	111	172
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.29	0.29	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	21.5	0.0	52.5	18.8	18.8	50.9	0.0	42.3	54.6	53.6	50.0
Incr Delay (d2), s/veh	1.1	7.0	0.0	4.2	0.8	2.2	9.2	0.0	3.7	1.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	18.9	0.0	5.1	10.8	12.6	10.2	0.0	10.5	2.3	0.6	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.3	28.5	0.0	56.7	19.6	21.0	60.1	0.0	46.0	55.6	53.8	50.5
LnGrp LOS	E	C		E	B	C	E	A	D	E	D	D
Approach Vol, veh/h	2862		A	1819			791			118		
Approach Delay, s/veh	29.0			23.9			56.2			52.7		
Approach LOS	C			C			E			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	70.3		13.9	18.9	64.2		23.0				
Change Period (Y+Rc), s	7.0	* 7.7		7.0	7.7	6.7		7.0				
Max Green Setting (Gmax), s	9.0	* 59		7.0	9.6	57.5		17.5				
Max Q Clear Time (g_c+I1), s	5.8	23.1		6.4	9.1	57.9		15.6				
Green Ext Time (p_c), s	0.0	23.7		0.0	0.0	0.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay	31.7											
HCM 6th LOS	C											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.												

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 3: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	530	1520	60	150	870	560	110	100	280	660	50	560
Future Volume (veh/h)	530	1520	60	150	870	560	110	100	280	660	50	560
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1856	1856	1856	1722	1722	1722
Adj Flow Rate, veh/h	616	1767	70	174	1012	0	128	116	0	767	58	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
Percent Heavy Veh, %	8	8	8	8	8	8	3	3	3	12	12	12
Cap, veh/h	675	1897	721	217	848		155	294		769	409	
Arrive On Green	0.21	0.39	0.39	0.07	0.25	0.00	0.09	0.08	0.00	0.24	0.24	0.00
Sat Flow, veh/h	3291	4863	1510	3291	3385	1510	1767	3526	1572	3182	1722	1459
Grp Volume(v), veh/h	616	1767	70	174	1012	0	128	116	0	767	58	0
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1646	1692	1510	1767	1763	1572	1591	1722	1459
Q Serve(g_s), s	22.0	41.8	3.0	6.3	30.1	0.0	8.5	3.7	0.0	28.9	3.2	0.0
Cycle Q Clear(g_c), s	22.0	41.8	3.0	6.3	30.1	0.0	8.5	3.7	0.0	28.9	3.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	675	1897	721	217	848		155	294		769	409	
V/C Ratio(X)	0.91	0.93	0.10	0.80	1.19		0.83	0.39		1.00	0.14	
Avail Cap(c_a), veh/h	727	1897	721	217	848		236	294		769	409	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.6	35.1	17.2	55.3	45.0	0.0	53.8	52.1	0.0	45.5	36.1	0.0
Incr Delay (d2), s/veh	15.2	9.8	0.3	19.2	98.3	0.0	13.3	1.2	0.0	31.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.3	24.0	2.0	5.6	35.0	0.0	7.7	3.0	0.0	20.7	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	44.9	17.4	74.5	143.3	0.0	67.2	53.4	0.0	77.2	36.3	0.0
LnGrp LOS	E	D	B	E	F		E	D		E	D	
Approach Vol, veh/h	2453			1186			244			825		
Approach Delay, s/veh	48.3			133.2			60.6			74.4		
Approach LOS	D			F			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.1	37.5	16.5	34.9	14.4	54.2	35.0	16.4				
Change Period (Y+Rc), s	6.5	7.4	6.0	6.4	6.5	7.4	6.0	6.4				
Max Green Setting (Gmax), s	26.5	28.2	16.0	23.0	7.9	46.8	29.0	10.0				
Max Q Clear Time (g_c+I1), s	24.0	32.1	10.5	5.2	8.3	43.8	30.9	5.7				
Green Ext Time (p_c), s	0.7	0.0	0.1	0.2	0.0	2.9	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay	74.9											
HCM 6th LOS	E											

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

3: SR 31 & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	530	1520	60	150	870	560	110	100	280	660	50	560
Future Volume (veh/h)	530	1520	60	150	870	560	110	100	280	660	50	560
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1856	1856	1856	1722	1722	1722
Adj Flow Rate, veh/h	616	1767	70	174	1012	0	128	116	0	767	58	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
Percent Heavy Veh, %	8	8	8	8	8	8	3	3	3	12	12	12
Cap, veh/h	675	1897	721	217	1219		155	294		769	409	
Arrive On Green	0.21	0.39	0.39	0.07	0.25	0.00	0.09	0.08	0.00	0.24	0.24	0.00
Sat Flow, veh/h	3291	4863	1510	3291	4863	1510	1767	3526	1572	3182	1722	1459
Grp Volume(v), veh/h	616	1767	70	174	1012	0	128	116	0	767	58	0
Grp Sat Flow(s),veh/h/ln	1646	1621	1510	1646	1621	1510	1767	1763	1572	1591	1722	1459
Q Serve(g_s), s	22.0	41.8	3.0	6.3	23.6	0.0	8.5	3.7	0.0	28.9	3.2	0.0
Cycle Q Clear(g_c), s	22.0	41.8	3.0	6.3	23.6	0.0	8.5	3.7	0.0	28.9	3.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	675	1897	721	217	1219		155	294		769	409	
V/C Ratio(X)	0.91	0.93	0.10	0.80	0.83		0.83	0.39		1.00	0.14	
Avail Cap(c_a), veh/h	727	1897	721	217	1219		236	294		769	409	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.6	35.1	17.2	55.3	42.5	0.0	53.8	52.1	0.0	45.5	36.1	0.0
Incr Delay (d2), s/veh	15.2	9.8	0.3	19.2	6.6	0.0	13.3	1.2	0.0	31.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.3	24.0	2.0	5.6	15.0	0.0	7.7	3.0	0.0	20.7	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	44.9	17.4	74.5	49.2	0.0	67.2	53.4	0.0	77.2	36.3	0.0
LnGrp LOS	E	D	B	E	D		E	D		E	D	
Approach Vol, veh/h		2453			1186	A		244	A		825	A
Approach Delay, s/veh		48.3			52.9			60.6			74.4	
Approach LOS		D			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	31.1	37.5	16.5	34.9	14.4	54.2	35.0	16.4				
Change Period (Y+Rc), s	6.5	7.4	6.0	6.4	6.5	7.4	6.0	6.4				
Max Green Setting (Gmax), s	26.5	28.2	16.0	23.0	7.9	46.8	29.0	10.0				
Max Q Clear Time (g_c+I1), s	24.0	25.6	10.5	5.2	8.3	43.8	30.9	5.7				
Green Ext Time (p_c), s	0.7	2.0	0.1	0.2	0.0	2.9	0.0	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			54.7									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [NBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

86: Davis Blvd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	2670	0	10	1840	30	10	0	0	30	0	70
Future Volume (veh/h)	90	2670	0	10	1840	30	10	0	0	30	0	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1722	1722	1722	1737	1737	1737	1752	1752	1752	1737	1737	1737
Adj Flow Rate, veh/h	97	2871	0	11	1978	32	11	0	0	32	0	75
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, %	12	12	12	11	11	11	10	10	10	11	11	11
Cap, veh/h	219	2281	1018	111	2129	949	113	0	0	200	0	112
Arrive On Green	0.07	0.70	0.00	0.02	0.65	0.65	0.08	0.00	0.00	0.08	0.00	0.08
Sat Flow, veh/h	1640	3272	1459	1654	3300	1472	434	0	0	1316	0	1472
Grp Volume(v), veh/h	97	2871	0	11	1978	32	11	0	0	32	0	75
Grp Sat Flow(s),veh/h/ln	1640	1636	1459	1654	1650	1472	434	0	0	1316	0	1472
Q Serve(g_s), s	1.6	62.7	0.0	0.2	47.8	0.7	0.8	0.0	0.0	0.0	0.0	4.5
Cycle Q Clear(g_c), s	1.6	62.7	0.0	0.2	47.8	0.7	5.2	0.0	0.0	1.6	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	2281	1018	111	2129	949	113	0	0	200	0	112
V/C Ratio(X)	0.44	1.26	0.00	0.10	0.93	0.03	0.10	0.00	0.00	0.16	0.00	0.67
Avail Cap(c_a), veh/h	230	2281	1018	209	2129	949	115	0	0	202	0	114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.40	0.40	0.40	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	13.6	0.0	23.8	14.2	5.8	43.0	0.0	0.0	39.2	0.0	40.5
Incr Delay (d2), s/veh	1.4	120.0	0.0	0.2	3.9	0.0	0.1	0.0	0.0	0.1	0.0	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	78.0	0.0	0.3	18.2	0.3	0.4	0.0	0.0	1.2	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	133.7	0.0	24.0	18.1	5.8	43.1	0.0	0.0	39.3	0.0	51.4
LnGrp LOS	C	F	A	C	B	A	D	A	A	D	A	D
Approach Vol, veh/h	2968				2021				11		107	
Approach Delay, s/veh	130.0				17.9				43.1		47.8	
Approach LOS	F				B				D		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	64.8		12.9	7.7	69.4		12.9				
Change Period (Y+Rc), s	6.0	6.7		6.0	6.0	6.7		6.0				
Max Green Setting (Gmax), s	7.0	57.3		7.0	7.0	57.3		7.0				
Max Q Clear Time (g_c+I1), s	3.6	49.8		7.2	2.2	64.7		6.5				
Green Ext Time (p_c), s	0.1	7.2		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	83.8											
HCM 6th LOS	F											

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

86: Davis Blvd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Traffic Volume (veh/h)	90	2670	0	10	1840	30	10	0	0	30	0	70
Future Volume (veh/h)	90	2670	0	10	1840	30	10	0	0	30	0	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1722	1722	1722	1737	1737	1737	1752	1752	1752	1737	1737	1737
Adj Flow Rate, veh/h	97	2871	0	11	1978	32	11	0	0	32	0	75
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, %	12	12	12	11	11	11	10	10	10	11	11	11
Cap, veh/h	219	3278	1018	130	2129	949	113	0	0	200	0	112
Arrive On Green	0.07	0.70	0.00	0.02	0.65	0.65	0.08	0.00	0.00	0.08	0.00	0.08
Sat Flow, veh/h	1640	4701	1459	1654	3300	1472	434	0	0	1316	0	1472
Grp Volume(v), veh/h	97	2871	0	11	1978	32	11	0	0	32	0	75
Grp Sat Flow(s),veh/h/ln	1640	1567	1459	1654	1650	1472	434	0	0	1316	0	1472
Q Serve(g_s), s	1.6	42.7	0.0	0.2	47.8	0.7	0.8	0.0	0.0	0.0	0.0	4.5
Cycle Q Clear(g_c), s	1.6	42.7	0.0	0.2	47.8	0.7	5.2	0.0	0.0	1.6	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	3278	1018	130	2129	949	113	0	0	200	0	112
V/C Ratio(X)	0.44	0.88	0.00	0.08	0.93	0.03	0.10	0.00	0.00	0.16	0.00	0.67
Avail Cap(c_a), veh/h	230	3278	1018	227	2129	949	115	0	0	202	0	114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.40	0.40	0.40	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	10.6	0.0	14.4	14.2	5.8	43.0	0.0	0.0	39.2	0.0	40.5
Incr Delay (d2), s/veh	1.4	3.6	0.0	0.1	3.9	0.0	0.1	0.0	0.0	0.1	0.0	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	16.4	0.0	0.2	18.2	0.3	0.4	0.0	0.0	1.2	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	14.2	0.0	14.5	18.1	5.8	43.1	0.0	0.0	39.3	0.0	51.4
LnGrp LOS	C	B	A	B	B	A	D	A	A	D	A	D
Approach Vol, veh/h	2968				2021				11		107	
Approach Delay, s/veh	14.5				17.9				43.1		47.8	
Approach LOS	B				B				D		D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	64.8		12.9	7.7	69.4		12.9				
Change Period (Y+Rc), s	6.0	6.7		6.0	6.0	6.7		6.0				
Max Green Setting (Gmax), s	7.0	57.3		7.0	7.0	57.3		7.0				
Max Q Clear Time (g_c+I1), s	3.6	49.8		7.2	2.2	44.7		6.5				
Green Ext Time (p_c), s	0.1	7.2		0.0	0.0	12.4		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	16.6											
HCM 6th LOS	B											

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

89: Verandah Blvd/Tropic Ave & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	2290	30	60	1550	30	110	20	30	50	0	60
Future Volume (veh/h)	120	2290	30	60	1550	30	110	20	30	50	0	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1796	1796	1796	1811	1811	1811	1470	1470	1470	1737	1737	1737
Adj Flow Rate, veh/h	135	2573	34	67	1742	34	124	22	34	56	0	67
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	6	6	6	29	29	29	11	11	11
Cap, veh/h	249	2033	907	189	2009	896	214	188	238	223	222	299
Arrive On Green	0.08	0.60	0.60	0.06	0.58	0.58	0.13	0.13	0.13	0.13	0.00	0.13
Sat Flow, veh/h	1711	3413	1522	1725	3441	1535	1049	1470	1246	1251	1737	1472
Grp Volume(v), veh/h	135	2573	34	67	1742	34	124	22	34	56	0	67
Grp Sat Flow(s),veh/h/ln	1711	1706	1522	1725	1721	1535	1049	1470	1246	1251	1737	1472
Q Serve(g_s), s	2.6	53.6	0.8	1.3	38.4	0.8	10.5	1.2	2.0	3.7	0.0	3.4
Cycle Q Clear(g_c), s	2.6	53.6	0.8	1.3	38.4	0.8	10.5	1.2	2.0	4.9	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	2033	907	189	2009	896	214	188	238	223	222	299
V/C Ratio(X)	0.54	1.27	0.04	0.35	0.87	0.04	0.58	0.12	0.14	0.25	0.00	0.22
Avail Cap(c_a), veh/h	253	2033	907	214	2009	896	214	188	238	223	222	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	18.2	7.5	21.2	15.8	8.0	38.8	34.8	30.3	36.9	0.0	30.0
Incr Delay (d2), s/veh	0.2	119.9	0.0	1.1	5.4	0.1	3.9	0.3	0.3	0.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	67.8	0.5	1.5	21.1	0.5	5.2	0.8	1.1	2.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	138.1	7.5	22.3	21.2	8.1	42.7	35.0	30.6	37.5	0.0	30.3
LnGrp LOS	B	F	A	C	C	A	D	D	C	D	A	C
Approach Vol, veh/h	2742			1843			180			123		
Approach Delay, s/veh	130.6			21.0			39.5			33.6		
Approach LOS	F			C			D			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	59.2		18.0	11.7	60.3		18.0				
Change Period (Y+Rc), s	6.0	6.7		6.5	6.0	6.7		6.5				
Max Green Setting (Gmax), s	7.0	52.3		11.5	7.0	52.3		11.5				
Max Q Clear Time (g_c+I1), s	4.6	40.4		12.5	3.3	55.6		6.9				
Green Ext Time (p_c), s	0.1	11.0		0.0	0.0	0.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	83.5											
HCM 6th LOS	F											

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

89: Verandah Blvd/Tropic Ave & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	2290	30	60	1550	30	110	20	30	50	0	60
Future Volume (veh/h)	120	2290	30	60	1550	30	110	20	30	50	0	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1796	1796	1796	1811	1811	1811	1470	1470	1470	1737	1737	1737
Adj Flow Rate, veh/h	135	2573	34	67	1742	34	124	22	34	56	0	67
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	7	7	7	6	6	6	29	29	29	11	11	11
Cap, veh/h	249	2921	907	206	2009	896	214	188	238	223	222	299
Arrive On Green	0.08	0.60	0.60	0.06	0.58	0.58	0.13	0.13	0.13	0.13	0.00	0.13
Sat Flow, veh/h	1711	4904	1522	1725	3441	1535	1049	1470	1246	1251	1737	1472
Grp Volume(v), veh/h	135	2573	34	67	1742	34	124	22	34	56	0	67
Grp Sat Flow(s),veh/h/ln	1711	1635	1522	1725	1721	1535	1049	1470	1246	1251	1737	1472
Q Serve(g_s), s	2.6	40.2	0.8	1.3	38.4	0.8	10.5	1.2	2.0	3.7	0.0	3.4
Cycle Q Clear(g_c), s	2.6	40.2	0.8	1.3	38.4	0.8	10.5	1.2	2.0	4.9	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	2921	907	206	2009	896	214	188	238	223	222	299
V/C Ratio(X)	0.54	0.88	0.04	0.33	0.87	0.04	0.58	0.12	0.14	0.25	0.00	0.22
Avail Cap(c_a), veh/h	253	2921	907	231	2009	896	214	188	238	223	222	299
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.60	0.60	0.60	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	15.5	7.5	19.5	15.8	8.0	38.8	34.8	30.3	36.9	0.0	30.0
Incr Delay (d2), s/veh	1.4	2.6	0.0	0.9	5.4	0.1	3.9	0.3	0.3	0.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	18.4	0.5	1.5	21.1	0.5	5.2	0.8	1.1	2.1	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	18.1	7.6	20.4	21.2	8.1	42.7	35.0	30.6	37.5	0.0	30.3
LnGrp LOS	C	B	A	C	C	A	D	D	C	D	A	C
Approach Vol, veh/h	2742			1843			180			123		
Approach Delay, s/veh	18.1			20.9			39.5			33.6		
Approach LOS	B			C			D			C		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	59.2		18.0	11.7	60.3		18.0				
Change Period (Y+Rc), s	6.0	6.7		6.5	6.0	6.7		6.5				
Max Green Setting (Gmax), s	7.0	52.3		11.5	7.0	52.3		11.5				
Max Q Clear Time (g_c+I1), s	4.6	40.4		12.5	3.3	42.2		6.9				
Green Ext Time (p_c), s	0.1	11.0		0.0	0.0	10.0		0.1				
Intersection Summary												
HCM 6th Ctrl Delay	20.3											
HCM 6th LOS	C											

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary

94: Buckingham Rd & SR 80

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	1510	510	230	780	20	480	120	180	110	120	90
Future Volume (veh/h)	130	1510	510	230	780	20	480	120	180	110	120	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1767	1767	1767	1826	1826	1826	1811	1811	1811
Adj Flow Rate, veh/h	134	1557	0	237	804	0	495	124	186	113	124	93
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	7	7	7	9	9	9	5	5	5	6	6	6
Cap, veh/h	388	1713		344	1787		549	367	439	160	156	212
Arrive On Green	0.10	1.00	0.00	0.08	0.53	0.00	0.16	0.20	0.20	0.05	0.09	0.09
Sat Flow, veh/h	1711	3413	1522	1682	3357	1497	3374	1826	1547	3346	1811	1535
Grp Volume(v), veh/h	134	1557	0	237	804	0	495	124	186	113	124	93
Grp Sat Flow(s),veh/h/ln	1711	1706	1522	1682	1678	1497	1687	1826	1547	1673	1811	1535
Q Serve(g_s), s	5.9	0.0	0.0	10.1	22.1	0.0	21.6	8.7	14.7	5.0	10.1	8.3
Cycle Q Clear(g_c), s	5.9	0.0	0.0	10.1	22.1	0.0	21.6	8.7	14.7	5.0	10.1	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	388	1713		344	1787		549	367	439	160	156	212
V/C Ratio(X)	0.35	0.91		0.69	0.45		0.90	0.34	0.42	0.71	0.80	0.44
Avail Cap(c_a), veh/h	390	1713		396	1787		630	367	439	424	254	295
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	0.0	14.8	21.6	0.0	61.6	51.4	43.7	70.4	67.3	59.3
Incr Delay (d2), s/veh	0.4	6.4	0.0	4.2	0.8	0.0	15.0	0.8	0.9	5.7	12.3	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	2.8	0.0	7.4	13.4	0.0	15.6	7.4	9.7	4.1	8.9	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	6.4	0.0	19.0	22.4	0.0	76.6	52.1	44.7	76.1	79.5	61.3
LnGrp LOS	B	A		B	C		E	D	D	E	E	E
Approach Vol, veh/h		1691	A		1041	A		805			330	
Approach Delay, s/veh		7.3			21.6			65.4			73.2	
Approach LOS		A			C			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.8	86.9	13.2	36.1	18.4	82.3	30.4	18.9				
Change Period (Y+Rc), s	6.0	7.0	6.0	6.0	6.0	7.0	6.0	6.0				
Max Green Setting (Gmax), s	8.0	68.0	19.0	30.0	17.0	59.0	28.0	21.0				
Max Q Clear Time (g_c+I1), s	7.9	24.1	7.0	16.7	12.1	2.0	23.6	12.1				
Green Ext Time (p_c), s	0.0	12.3	0.2	1.5	0.3	34.9	0.8	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			28.9									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [EBR, WBR] is excluded from calculations of the approach delay and intersection delay.												

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 5: SR 31 & Bayshore Rd

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	500	250	260	980	1170	550
Future Volume (veh/h)	500	250	260	980	1170	550
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1796	1752	1752
Adj Flow Rate, veh/h	538	0	280	1054	1258	591
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7	7	10	10
Cap, veh/h	560		303	1964	1293	1063
Arrive On Green	0.33	0.00	0.15	0.58	0.39	0.39
Sat Flow, veh/h	1711	1522	1711	3503	3416	1485
Grp Volume(v), veh/h	538	0	280	1054	1258	591
Grp Sat Flow(s),veh/h/ln	1711	1522	1711	1706	1664	1485
Q Serve(g_s), s	44.4	0.0	18.6	27.3	53.5	27.1
Cycle Q Clear(g_c), s	44.4	0.0	18.6	27.3	53.5	27.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	560		303	1964	1293	1063
V/C Ratio(X)	0.96		0.93	0.54	0.97	0.56
Avail Cap(c_a), veh/h	596		339	2037	1293	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	46.1	18.8	43.3	9.7
Incr Delay (d2), s/veh	26.6	0.0	28.8	1.1	19.4	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	30.0	0.0	18.1	16.0	32.5	28.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	74.1	0.0	74.9	19.8	62.6	11.8
LnGrp LOS	E		E	B	E	B
Approach Vol, veh/h	538	A		1334	1849	
Approach Delay, s/veh	74.1			31.4	46.4	
Approach LOS	E			C	D	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	26.9	63.4			90.3	53.6
Change Period (Y+Rc), s	6.0	7.5			7.5	6.5
Max Green Setting (Gmax), s	24.0	55.9			85.9	50.1
Max Q Clear Time (g_c+I1), s	20.6	55.5			29.3	46.4
Green Ext Time (p_c), s	0.3	0.4			31.8	0.7
Intersection Summary						
HCM 6th Ctrl Delay			45.0			
HCM 6th LOS			D			
Notes						
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.						

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 7: SR 31 & Old Bayshore Rd/North River Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	20	50	80	10	280	30	1440	130	290	1490	60
Future Volume (veh/h)	60	20	50	80	10	280	30	1440	130	290	1490	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1752	1752	1752	1767	1767	1767	1693	1693	1693
Adj Flow Rate, veh/h	67	22	56	89	11	311	33	1600	144	322	1656	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	14	14	14	10	10	10	9	9	9	14	14	14
Cap, veh/h	119	135	115	132	140	297	90	1201	1018	241	1312	1112
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.02	0.68	0.68	0.12	0.78	0.78
Sat Flow, veh/h	957	1693	1434	1237	1752	1485	1682	1767	1497	1612	1693	1434
Grp Volume(v), veh/h	67	22	56	89	11	311	33	1600	144	322	1656	67
Grp Sat Flow(s),veh/h/ln	957	1693	1434	1237	1752	1485	1682	1767	1497	1612	1693	1434
Q Serve(g_s), s	10.5	1.8	5.6	10.2	0.9	12.0	0.9	102.0	5.1	18.0	116.3	1.7
Cycle Q Clear(g_c), s	11.3	1.8	5.6	12.0	0.9	12.0	0.9	102.0	5.1	18.0	116.3	1.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	119	135	115	132	140	297	90	1201	1018	241	1312	1112
V/C Ratio(X)	0.56	0.16	0.49	0.67	0.08	1.05	0.37	1.33	0.14	1.33	1.26	0.06
Avail Cap(c_a), veh/h	119	135	115	132	140	297	104	1201	1018	241	1312	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.1	64.3	66.1	70.2	63.9	60.0	41.3	24.0	8.5	58.6	16.9	4.0
Incr Delay (d2), s/veh	6.0	0.6	3.2	12.7	0.2	65.2	2.5	155.1	0.1	175.6	124.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	1.5	3.9	7.0	0.7	23.8	1.6	127.1	2.7	31.1	110.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	64.9	69.2	82.9	64.1	125.2	43.8	179.1	8.6	234.3	141.2	4.0
LnGrp LOS	E	E	E	F	E	F	D	F	A	F	F	A
Approach Vol, veh/h	145			411			1777			2045		
Approach Delay, s/veh	71.3			114.4			162.8			151.4		
Approach LOS	E			F			F			F		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.0	108.0		18.0	9.7	122.3		18.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	18.0	102.0		12.0	5.0	115.0		12.0				
Max Q Clear Time (g_c+I1), s	20.0	104.0		13.3	2.9	118.3		14.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	149.9											
HCM 6th LOS	F											

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 7: SR 31 & Old Bayshore Rd/North River Rd

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	20	50	80	10	280	30	1440	130	290	1490	60
Future Volume (veh/h)	60	20	50	80	10	280	30	1440	130	290	1490	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1693	1693	1693	1752	1752	1752	1767	1767	1767	1693	1693	1693
Adj Flow Rate, veh/h	67	22	56	89	11	311	33	1600	144	322	1656	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	14	14	14	10	10	10	9	9	9	14	14	14
Cap, veh/h	169	190	161	191	196	383	213	1926	859	349	2221	991
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.03	0.57	0.57	0.15	0.69	0.69
Sat Flow, veh/h	957	1693	1434	1237	1752	1485	1682	3357	1497	1612	3216	1434
Grp Volume(v), veh/h	67	22	56	89	11	311	33	1600	144	322	1656	67
Grp Sat Flow(s),veh/h/ln	957	1693	1434	1237	1752	1485	1682	1678	1497	1612	1608	1434
Q Serve(g_s), s	7.2	1.3	3.9	7.5	0.6	12.0	0.9	41.6	4.9	13.4	35.2	1.6
Cycle Q Clear(g_c), s	7.8	1.3	3.9	8.7	0.6	12.0	0.9	41.6	4.9	13.4	35.2	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	190	161	191	196	383	213	1926	859	349	2221	991
V/C Ratio(X)	0.40	0.12	0.35	0.47	0.06	0.81	0.16	0.83	0.17	0.92	0.75	0.07
Avail Cap(c_a), veh/h	169	190	161	191	196	383	242	3197	1426	385	3453	1540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.0	42.8	43.9	46.7	42.5	37.3	11.3	18.6	10.8	31.1	10.6	5.4
Incr Delay (d2), s/veh	1.5	0.3	1.3	1.8	0.1	12.4	0.3	1.0	0.1	26.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.2	1.0	2.6	4.3	0.5	13.7	0.5	19.6	2.5	15.6	14.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	43.0	45.2	48.5	42.6	49.7	11.7	19.6	10.9	57.2	11.1	5.4
LnGrp LOS	D	D	D	D	D	D	B	B	B	E	B	A
Approach Vol, veh/h	145			411			1777			2045		
Approach Delay, s/veh	45.9			49.2			18.7			18.1		
Approach LOS	D			D			B			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.7	67.5		18.0	9.1	80.0		18.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	18.0	102.0		12.0	5.0	115.0		12.0				
Max Q Clear Time (g_c+I1), s	15.4	43.6		9.8	2.9	37.2		14.0				
Green Ext Time (p_c), s	0.3	17.9		0.1	0.0	19.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	22.2											
HCM 6th LOS	C											

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

Lanes, Volumes, Timings

31: SR 31 & CR 74

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	40	20	30	40	10	30	230	40	10	230	10
Future Volume (vph)	10	40	20	30	40	10	30	230	40	10	230	10
Satd. Flow (prot)	0	1343	0	0	1378	0	0	1534	0	0	1546	0
Flt Permitted		0.993			0.981			0.995			0.998	
Satd. Flow (perm)	0	1343	0	0	1378	0	0	1534	0	0	1546	0
Lane Group Flow (vph)	0	76	0	0	87	0	0	326	0	0	272	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Control Type: Unsignalized												
Intersection Capacity Utilization 42.7%												
ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
31: SR 31 & CR 74

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	40	20	30	40	10	30	230	40	10	230	10
Future Vol, veh/h	10	40	20	30	40	10	30	230	40	10	230	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	35	35	35	33	33	33	21	21	21	22	22	22
Mvmt Flow	11	43	22	33	43	11	33	250	43	11	250	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	643	637	256	648	621	272	261	0	0	293	0	0
Stage 1	278	278	-	338	338	-	-	-	-	-	-	-
Stage 2	365	359	-	310	283	-	-	-	-	-	-	-
Critical Hdwy	7.45	6.85	6.55	7.43	6.83	6.53	4.31	-	-	4.32	-	-
Critical Hdwy Stg 1	6.45	5.85	-	6.43	5.83	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.45	5.85	-	6.43	5.83	-	-	-	-	-	-	-
Follow-up Hdwy	3.815	4.315	3.615	3.797	4.297	3.597	2.389	-	-	2.398	-	-
Pot Cap-1 Maneuver	344	355	709	344	365	698	1201	-	-	1163	-	-
Stage 1	662	624	-	616	589	-	-	-	-	-	-	-
Stage 2	592	573	-	639	624	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	296	339	709	291	349	698	1201	-	-	1163	-	-
Mov Cap-2 Maneuver	296	339	-	291	349	-	-	-	-	-	-	-
Stage 1	640	617	-	596	570	-	-	-	-	-	-	-
Stage 2	521	554	-	569	617	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	16.5		18.9		0.8		0.3					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1201	-	-	389	345	1163	-	-				
HCM Lane V/C Ratio	0.027	-	-	0.196	0.252	0.009	-	-				
HCM Control Delay (s)	8.1	0	-	16.5	18.9	8.1	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.7	1	0	-	-				

Future 2026 Traffic Conditions with MPD, with NOPC Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 116: SR 31 & Shirley Ln/Project Entrance

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	10	0	10	584	0	34	10	1591	337	10	30	1284
Future Volume (veh/h)	10	0	10	584	0	34	10	1591	337	10	30	1284
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach		No			No			No				No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1618	1618	1618		1633	1633
Adj Flow Rate, veh/h	11	0	11	635	0	37	11	1729	366		33	1396
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
Percent Heavy Veh, %	2	2	2	2	2	2	19	19	19		18	18
Cap, veh/h	23	0	86	693	0	383	127	2124	934		156	1562
Arrive On Green	0.01	0.00	0.05	0.20	0.00	0.24	0.02	0.48	0.48		0.04	0.50
Sat Flow, veh/h	1781	0	1585	3456	0	1585	1541	4418	1372		1555	3103
Grp Volume(v), veh/h	11	0	11	635	0	37	11	1729	366		33	1396
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1728	0	1585	1541	1473	1372		1555	1552
Q Serve(g_s), s	0.7	0.0	0.7	19.3	0.0	1.9	0.4	35.8	12.4		1.1	43.6
Cycle Q Clear(g_c), s	0.7	0.0	0.7	19.3	0.0	1.9	0.4	35.8	12.4		1.1	43.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00		1.00	
Lane Grp Cap(c), veh/h	23	0	86	693	0	383	127	2124	934		156	1562
V/C Ratio(X)	0.47	0.00	0.13	0.92	0.00	0.10	0.09	0.81	0.39		0.21	0.89
Avail Cap(c_a), veh/h	83	0	103	709	0	383	200	2472	1043		194	1737
HCM Platoon Ratio	1.00	1.00	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
Uniform Delay (d), s/veh	52.5	0.0	48.3	42.0	0.0	31.6	21.7	23.8	7.4		19.9	24.0
Incr Delay (d2), s/veh	14.2	0.0	0.7	16.5	0.0	0.1	0.3	1.9	0.3		0.7	6.0
Initial Q Delay(d3),s/veh	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	0.5	14.8	0.0	1.4	0.2	16.7	6.0		0.7	21.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.8	0.0	49.0	58.4	0.0	31.7	22.0	25.7	7.7		20.6	30.0
LnGrp LOS	E	A	D	E	A	C	C	C	A		C	C
Approach Vol, veh/h		22			672			2106				1440
Approach Delay, s/veh		57.9			56.9			22.5				29.7
Approach LOS		E			E			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	57.5	27.5	11.8	8.0	60.0	7.4	31.9				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	7.0	60.0	22.0	7.0	7.0	60.0	5.0	24.0				
Max Q Clear Time (g_c+I1), s	3.1	37.8	21.3	2.7	2.4	45.6	2.7	3.9				
Green Ext Time (p_c), s	0.0	13.7	0.2	0.0	0.0	7.8	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			30.6									
HCM 6th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved ignoring U-Turning movement.												

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 116: SR 31 & Shirley Ln/Project Entrance

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	10
Future Volume (veh/h)	10
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1633
Adj Flow Rate, veh/h	11
Peak Hour Factor	0.92
Percent Heavy Veh, %	18
Cap, veh/h	697
Arrive On Green	0.50
Sat Flow, veh/h	1384
Grp Volume(v), veh/h	11
Grp Sat Flow(s),veh/h/ln	1384
Q Serve(g_s), s	0.4
Cycle Q Clear(g_c), s	0.4
Prop In Lane	1.00
Lane Grp Cap(c), veh/h	697
V/C Ratio(X)	0.02
Avail Cap(c_a), veh/h	775
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	13.3
Incr Delay (d2), s/veh	0.0
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(95%),veh/ln	0.2
Unsig. Movement Delay, s/veh	
LnGrp Delay(d),s/veh	13.3
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Lanes, Volumes, Timings
120: SR 31 & Fox Hill Rd/Project Entrance

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	20	0	0	73	10	1259	376	30	1313	10
Future Volume (vph)	0	0	20	0	0	73	10	1259	376	30	1313	10
Satd. Flow (prot)	0	0	1611	0	0	1611	1517	3034	1357	1530	3059	1369
Flt Permitted							0.950			0.950		
Satd. Flow (perm)	0	0	1611	0	0	1611	1517	3034	1357	1530	3059	1369
Lane Group Flow (vph)	0	0	22	0	0	79	11	1368	409	33	1427	11
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Control Type: Unsignalized												
Intersection Capacity Utilization 46.3% ICU Level of Service A												
Analysis Period (min) 15												

HCM 6th TWSC
120: SR 31 & Fox Hill Rd/Project Entrance

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	20	0	0	73	10	1259	376	30	1313	10
Future Vol, veh/h	0	0	20	0	0	73	10	1259	376	30	1313	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	175	-	-	500	-	175
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	19	19	19	18	18	18
Mvmt Flow	0	0	22	0	0	79	11	1368	409	33	1427	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	-	714	-	-	684	1438	0	0	1777	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.94	-	-	6.94	4.48	-	-	4.46	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.32	-	-	3.32	2.39	-	-	2.38	-	-
Pot Cap-1 Maneuver	0	0	374	0	0	391	391	-	-	284	-	-
Stage 1	0	0	-	0	0	-	-	-	-	-	-	-
Stage 2	0	0	-	0	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	374	-	-	391	391	-	-	284	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	15.2		16.5		0.1		0.4					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	391	-	-	374	391	284	-	-				
HCM Lane V/C Ratio	0.028	-	-	0.058	0.203	0.115	-	-				
HCM Control Delay (s)	14.5	-	-	15.2	16.5	19.3	-	-				
HCM Lane LOS	B	-	-	C	C	C	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.7	0.4	-	-				

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour

HCM 6th Signalized Intersection Summary 123: SR 31 & Busbee Ln/Project Entrance

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 				 			 	
Traffic Volume (veh/h)	10	0	10	584	0	34	10	985	337	30	759	10
Future Volume (veh/h)	10	0	10	584	0	34	10	985	337	30	759	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1618	1618	1618	1633	1633	1633
Adj Flow Rate, veh/h	11	0	11	635	0	37	11	1071	366	33	825	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	19	19	19	18	18	18
Cap, veh/h	24	0	76	714	0	382	224	1167	521	167	1239	553
Arrive On Green	0.01	0.00	0.05	0.21	0.00	0.24	0.01	0.38	0.38	0.03	0.40	0.40
Sat Flow, veh/h	1781	0	1585	3456	0	1585	1541	3075	1372	1555	3103	1384
Grp Volume(v), veh/h	11	0	11	635	0	37	11	1071	366	33	825	11
Grp Sat Flow(s),veh/h/ln	1781	0	1585	1728	0	1585	1541	1537	1372	1555	1552	1384
Q Serve(g_s), s	0.4	0.0	0.5	12.9	0.0	1.3	0.3	24.0	16.3	0.9	15.7	0.3
Cycle Q Clear(g_c), s	0.4	0.0	0.5	12.9	0.0	1.3	0.3	24.0	16.3	0.9	15.7	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	24	0	76	714	0	382	224	1167	521	167	1239	553
V/C Ratio(X)	0.45	0.00	0.14	0.89	0.00	0.10	0.05	0.92	0.70	0.20	0.67	0.02
Avail Cap(c_a), veh/h	123	0	395	718	0	614	310	1192	532	223	1239	553
HCM Platoon Ratio	1.00	1.00	1.00	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	35.4	0.0	33.0	27.8	0.0	21.3	14.8	21.3	19.0	17.1	17.8	13.1
Incr Delay (d2), s/veh	12.4	0.0	0.9	13.1	0.0	0.1	0.1	11.1	4.1	0.6	1.4	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	0.5	0.0	0.4	10.5	0.0	0.9	0.2	13.6	9.2	0.5	8.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	0.0	33.8	40.9	0.0	21.4	14.9	32.5	23.0	17.7	19.1	13.2
LnGrp LOS	D	A	C	D	A	C	B	C	C	B	B	B
Approach Vol, veh/h	22			672			1448			869		
Approach Delay, s/veh	40.8			39.9			30.0			19.0		
Approach LOS	D			D			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	33.4	20.9	9.5	7.0	34.8	7.0	23.4				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	5.0	28.0	15.0	18.0	5.0	28.0	5.0	28.0				
Max Q Clear Time (g_c+I1), s	2.9	26.0	14.9	2.5	2.3	17.7	2.4	3.3				
Green Ext Time (p_c), s	0.0	1.5	0.0	0.0	0.0	3.6	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay	29.1											
HCM 6th LOS	C											

Future 2026 Traffic Conditions with MPD, with NOPC and MPD Related Improvements - PM Peak Hour