

























HCM 6th Signalized Intersection Summary

3: University Ave & Towne Centre Dr

04/01/2023


												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	58	174	257	85	143	247	925	104	58	1726	58
Future Volume (veh/h)	49	58	174	257	85	143	247	925	104	58	1726	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	63	189	279	92	155	268	1005	113	63	1876	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	88	472	210	322	712	318	312	3056	949	100	2744	852
Arrive On Green	0.03	0.13	0.13	0.09	0.20	0.20	0.09	0.60	0.60	0.06	1.00	1.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	53	63	189	279	92	155	268	1005	113	63	1876	63
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	2.3	2.3	17.6	11.9	3.2	13.0	11.5	14.8	4.6	2.7	0.0	0.0
Cycle Q Clear(g_c), s	2.3	2.3	17.6	11.9	3.2	13.0	11.5	14.8	4.6	2.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	472	210	322	712	318	312	3056	949	100	2744	852
V/C Ratio(X)	0.60	0.13	0.90	0.87	0.13	0.49	0.86	0.33	0.12	0.63	0.68	0.07
Avail Cap(c_a), veh/h	346	877	391	346	877	391	415	3056	949	415	2744	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	72.3	57.4	64.1	67.1	49.2	53.2	67.3	15.0	13.0	69.9	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	5.1	18.1	0.0	0.4	10.6	0.3	0.3	2.1	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.1	7.5	6.1	1.5	5.3	5.5	5.8	1.8	1.2	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.6	57.5	69.1	85.2	49.3	53.6	77.9	15.3	13.3	72.0	1.3	0.2
LnGrp LOS	E	E	E	F	D	D	E	B	B	E	A	A
Approach Vol, veh/h	305				526				1386			
Approach Delay, s/veh	67.7				69.6				27.3			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	95.8	19.0	25.9	18.5	86.6	8.8	36.1				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	18.0	58.0	15.0	37.0	18.0	58.0	15.0	37.0				
Max Q Clear Time (g_c+I1), s	4.7	16.8	13.9	19.6	13.5	2.0	4.3	15.0				
Green Ext Time (p_c), s	0.0	3.8	0.0	0.3	0.1	9.7	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay	24.2											
HCM 6th LOS	C											

Educational Use Only

HCM 6th Signalized Intersection Summary

5: Towne Centre Blvd & Towne Centre Dr

04/01/2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↔	↑	↔	↔↔	↑↑
Traffic Volume (veh/h)	228	151	22	195	94	22
Future Volume (veh/h)	228	151	22	195	94	22
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	248	0	24	0	102	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	610		104		337	1171
Arrive On Green	0.18	0.00	0.06	0.00	0.10	0.33
Sat Flow, veh/h	3456	1585	1870	1585	3456	3647
Grp Volume(v), veh/h	248	0	24	0	102	24
Grp Sat Flow(s),veh/h/ln	1728	1585	1870	1585	1728	1777
Q Serve(g_s), s	1.8	0.0	0.3	0.0	0.8	0.1
Cycle Q Clear(g_c), s	1.8	0.0	0.3	0.0	0.8	0.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	610		104		337	1171
V/C Ratio(X)	0.41		0.23		0.30	0.02
Avail Cap(c_a), veh/h	2683		1584		2439	3010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	0.0	12.8	0.0	11.9	6.4
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.1	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.5	0.0	13.2	0.0	12.1	6.4
LnGrp LOS	B		B		B	A
Approach Vol, veh/h	248		24			126
Approach Delay, s/veh	10.5		13.2			11.0
Approach LOS	B		B			B
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.8	7.6		13.0		15.3
Change Period (Y+Rc), s	5.0	6.0		8.0		6.0
Max Green Setting (Gmax), s	20.0	24.0		22.0		24.0
Max Q Clear Time (g_c+I1), s	2.8	2.3		3.8		2.1
Green Ext Time (p_c), s	0.1	0.0		0.4		0.0
Intersection Summary						
HCM 6th Ctrl Delay			10.8			
HCM 6th LOS			B			

Notes
























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

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HCM 6th Signalized Intersection Summary

6: University Ave & 1200 S

04/01/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	17	94	61	26	30	55	1008	44	49	1640	64
Future Volume (veh/h)	33	17	94	61	26	30	55	1008	44	49	1640	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	18	102	66	28	33	60	1096	48	53	1783	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	145	123	129	55	70	263	3929	1220	479	3924	1218
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.06	1.00	1.00	0.03	0.77	0.77
Sat Flow, veh/h	1341	1870	1585	1070	713	906	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	36	18	102	71	0	56	60	1096	48	53	1783	70
Grp Sat Flow(s),veh/h/ln	1341	1870	1585	1150	0	1539	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	4.0	1.3	9.5	8.1	0.0	5.2	1.1	0.0	0.0	0.9	18.6	1.6
Cycle Q Clear(g_c), s	9.2	1.3	9.5	9.4	0.0	5.2	1.1	0.0	0.0	0.9	18.6	1.6
Prop In Lane	1.00		1.00	0.93		0.59	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	105	145	123	135	0	119	263	3929	1220	479	3924	1218
V/C Ratio(X)	0.34	0.12	0.83	0.52	0.00	0.47	0.23	0.28	0.04	0.11	0.45	0.06
Avail Cap(c_a), veh/h	243	337	285	269	0	277	333	3929	1220	551	3924	1218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.6	64.4	68.2	68.8	0.0	66.2	4.5	0.0	0.0	3.1	6.2	4.2
Incr Delay (d2), s/veh	0.7	0.1	5.4	1.2	0.0	1.1	0.2	0.2	0.1	0.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.7	4.1	2.8	0.0	2.1	0.3	0.1	0.0	0.3	6.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.4	64.6	73.6	70.0	0.0	67.3	4.6	0.2	0.1	3.2	6.6	4.3
LnGrp LOS	E	E	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h	156			127			1204			1906		
Approach Delay, s/veh	72.0			68.8			0.4			6.4		
Approach LOS	E			E			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	121.4		19.6	9.1	121.3		19.6				
Change Period (Y+Rc), s	4.5	6.0		8.0	4.5	6.0		8.0				
Max Green Setting (Gmax), s	10.5	94.0		27.0	10.5	94.0		27.0				
Max Q Clear Time (g_c+I1), s	2.9	2.0		11.5	3.1	20.6		11.4				
Green Ext Time (p_c), s	0.0	3.7		0.1	0.0	7.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	9.6											
HCM 6th LOS	A											

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