












# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

04/27/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	415	90	254	412	99	252			
Future Volume (veh/h)	415	90	254	412	99	252			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	461	100	282	458	110	280			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	502	109	780	661	140	1031			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.34	0.34	0.42	0.42	0.08	0.55			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	41.4	0.0	19.1	26.7	50.0	11.3			
Ln Grp LOS	D	A	B	C	D	B			
Approach Vol, veh/h	562		740			390			
Approach Delay, s/veh	41.4		23.8			22.2			
Approach LOS	D		C			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		12.1	42.5	35.4			54.6		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	23.0	40.0			40.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		7.5	23.3	28.8			9.1		
Green Ext Time (g_e), s		0.1	0.0	1.6			1.8		
Prob of Phs Call (p_c)		0.94	1.00	1.00			1.00		
Prob of Max Out (p_x)		0.50	0.00	0.07			0.00		
Left-Turn Movement Data									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1487					
Through Movement Data									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	3			1870		
Right-Turn Movement Data									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	323			0		
Left Lane Group Data									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

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Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	110	0	562	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1813	0	0	0	0	0
Q Serve Time (g_s), s	5.5	0.0	26.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	5.5	0.0	26.8	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	37.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	140	0	612	0	0	0	0	0
V/C Ratio (X)	0.79	0.00	0.92	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	806	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	40.7	0.0	28.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.0	12.8	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	50.0	0.0	41.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	11.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.4	0.0	2.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.8	0.0	13.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.70	0.00	1.53	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	282	0	0	0	280	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	9.3	0.0	0.0	0.0	7.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	0.0	0.0	7.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	780	0	0	0	1031	0	0
V/C Ratio (X)	0.00	0.36	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	780	0	0	0	1031	0	0
Upstream Filter (I)	0.00	0.87	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	18.0	0.0	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.1	0.0	0.0	0.0	11.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.0	0.0	0.0	0.0	2.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	0.0	0.0	3.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.00	0.00	0.20	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	458	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	21.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	21.3	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.18	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	661	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	661	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	6	414	23	35	542	23	10	46	27	25	27	19
Future Volume (veh/h)	6	414	23	35	542	23	10	46	27	25	27	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	7	460	26	39	602	26	11	51	30	28	30	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	46	1418	79	93	1353	57	54	79	43	110	83	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	2.6	0.0	0.0	3.3	0.0	0.0	43.0	0.0	0.0	40.7	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		493			667			92			58	
Approach Delay, s/veh		2.6			3.3			43.0			40.7	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.6		78.4		11.6		78.4			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			19.0		61.0		19.0		61.0			
Max Allow Headway (MAH), s			5.5		5.4		5.5		5.5			
Max Q Clear (g_c+I1), s			6.5		8.0		4.6		11.3			
Green Ext Time (g_e), s			0.3		3.9		0.2		6.1			
Prob of Phs Call (p_c)			0.98		1.00		0.98		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			131		7		688		62			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1079		1739		1128		1660			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			585		97		0		70			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment		L+T+R		L+T+R		L+T		L+T+R				

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	92	0	493	0	58	0	667
Grp Sat Flow (s), veh/h/ln	0	1795	0	1843	0	1817	0	1792
Q Serve Time (g_s), s	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.5	0.0	6.0	0.0	2.6	0.0	9.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1401	0	810	0	1338	0	924
Shared LT Sat Flow (s_sh), veh/h/ln	0	1934	0	1869	0	1899	0	1865
Perm LT Eff Green (g_p), s	0.0	6.6	0.0	73.4	0.0	6.6	0.0	73.4
Perm LT Serve Time (g_u), s	0.0	4.0	0.0	64.1	0.0	2.2	0.0	67.4
Perm LT Q Serve Time (g_ps), s	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.5	0.0	53.1	0.0	1.3	0.0	28.7
Serve Time pre Blk (g_fs), s	0.0	2.5	0.0	6.0	0.0	1.3	0.0	9.3
Prop LT Inside Lane (P_L)	0.00	0.12	0.00	0.01	0.00	0.48	0.00	0.06
Lane Grp Cap (c), veh/h	0	177	0	1543	0	193	0	1503
V/C Ratio (X)	0.00	0.52	0.00	0.32	0.00	0.30	0.00	0.44
Avail Cap (c_a), veh/h	0	420	0	1543	0	415	0	1503
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.7	0.0	2.1	0.0	39.8	0.0	2.4
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.5	0.0	0.9	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.0	0.0	2.6	0.0	40.7	0.0	3.3
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	1.3	0.0	1.2	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	1.5	0.0	1.3	0.0	2.4
%ile Storage Ratio (RQ%)	0.00	0.47	0.00	0.06	0.00	0.04	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.33	0.00	0.05	0.00	0.00	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

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Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	124	4	102	561	494	148				
Future Volume (veh/h)	124	4	102	561	494	148				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	138	4	113	623	549	164				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	175	5	549	1446	906	271				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.10	0.10	0.08	0.77	0.66	0.66				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	42.5	0.0	5.6	4.0	0.0	10.2				
Ln Grp LOS	D	A	A	A	A	B				
Approach Vol, veh/h	143			736	713					
Approach Delay, s/veh	42.5			4.3	10.2					
Approach LOS	D			A	B					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		13.2	9.4	57.6			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			11.1		8.3	3.3	20.2			
Green Ext Time (g_e), s			5.3		0.2	0.1	6.4			
Prob of Phs Call (p_c)			1.00		0.96	0.92	1.00			
Prob of Max Out (p_x)			0.00		0.01	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1714	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		12		1383			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		50		413			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
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Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	143	113	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1776	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	6.3	1.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.3	1.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	737	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.6	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	34.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.97	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	181	549	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.79	0.21	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	399	561	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.2	5.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.4	0.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	42.5	5.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.7	0.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.1	0.4	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.20	0.04	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	623	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1446	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1446	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0



HCM 6th Signalized Intersection Capacity Analysis  
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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	713	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1796	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.03	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1177	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1177	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	10.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.48	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	10.4
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	21	27	21	332	306	53
Future Vol, veh/h	21	27	21	332	306	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	30	23	369	340	59

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	785	370	399	0	-	0
Stage 1	370	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	361	676	1160	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	352	676	1160	-	-	-
Mov Cap-2 Maneuver	352	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	666	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1160	-	482	-	-
HCM Lane V/C Ratio	0.02	-	0.111	-	-
HCM Control Delay (s)	8.2	0	13.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Intersection						
Int Delay, s/veh	4.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	20	13	30	18	51
Future Vol, veh/h	54	20	13	30	18	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	22	14	33	20	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	128	31	0	0	47
Stage 1	31	-	-	-	-
Stage 2	97	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	866	1043	-	-	1560
Stage 1	992	-	-	-	-
Stage 2	927	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	855	1043	-	-	1560
Mov Cap-2 Maneuver	855	-	-	-	-
Stage 1	992	-	-	-	-
Stage 2	915	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	899	1560
HCM Lane V/C Ratio	-	-	0.091	0.013
HCM Control Delay (s)	-	-	9.4	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

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Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	121	1	2	216	3	8	19	7	0	59	46
Future Vol, veh/h	21	121	1	2	216	3	8	19	7	0	59	46
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	134	1	2	240	3	9	21	8	0	66	51

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	243	0	0	135	0	0	485	428	135	441	427	242
Stage 1	-	-	-	-	-	-	181	181	-	246	246	-
Stage 2	-	-	-	-	-	-	304	247	-	195	181	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1323	-	-	1449	-	-	492	519	914	527	520	797
Stage 1	-	-	-	-	-	-	821	750	-	758	703	-
Stage 2	-	-	-	-	-	-	705	702	-	807	750	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1323	-	-	1449	-	-	408	508	914	498	509	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	408	508	-	498	509	-
Stage 1	-	-	-	-	-	-	805	736	-	744	702	-
Stage 2	-	-	-	-	-	-	597	701	-	762	736	-












Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.1			12.4			12.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	526	1323	-	-	1449	-	-	605
HCM Lane V/C Ratio	0.072	0.018	-	-	0.002	-	-	0.193
HCM Control Delay (s)	12.4	7.8	0	-	7.5	0	-	12.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.7

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

04/27/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	470	105	327	504	153	314			
Future Volume (veh/h)	470	105	327	504	153	314			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	522	117	363	560	170	349			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	557	125	640	542	204	958			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.38	0.38	0.34	0.34	0.11	0.51			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	45.0	0.0	26.9	71.7	58.2	14.2			
Ln Grp LOS	D	A	C	F	E	B			
Approach Vol, veh/h	640		923			519			
Approach Delay, s/veh	45.0		54.1			28.6			
Approach LOS	D		D			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		15.3	35.8	38.9			51.1		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	25.0	38.0			42.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		10.4	32.8	32.6			12.1		
Green Ext Time (g_e), s		0.1	0.0	1.3			2.4		
Prob of Phs Call (p_c)		0.99	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	0.62			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1478					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	3			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	331			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

04/27/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	170	0	640	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1812	0	0	0	0	0
Q Serve Time (g_s), s	8.4	0.0	30.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	8.4	0.0	30.6	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	30.8	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	204	0	682	0	0	0	0	0
V/C Ratio (X)	0.83	0.00	0.94	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	765	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	39.0	0.0	27.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	19.2	0.0	18.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	58.2	0.0	45.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.7	0.0	12.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	1.1	0.0	3.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	4.7	0.0	16.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.21	0.00	1.83	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	363	0	0	0	349	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	14.3	0.0	0.0	0.0	10.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.3	0.0	0.0	0.0	10.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	640	0	0	0	958	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	640	0	0	0	958	0	0
Upstream Filter (I)	0.00	0.74	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	24.2	0.0	0.0	0.0	13.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.7	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	26.9	0.0	0.0	0.0	14.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.2	0.0	0.0	0.0	4.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.7	0.0	0.0	0.0	4.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.48	0.00	0.00	0.00	0.29	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

















Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	560	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	30.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	30.8	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.18	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	542	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	542	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	29.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	42.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	71.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	11.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	6.3	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	17.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.80	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis  
4: Maxwell Ave & Franklin St

04/27/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	533	22	52	642	7	12	29	36	21	53	15
Future Volume (veh/h)	10	533	22	52	642	7	12	29	36	21	53	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	11	592	24	58	713	8	13	32	40	23	59	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1442	58	115	1350	15	59	53	58	79	101	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.0	0.0	0.0	3.9	0.0	0.0	43.1	0.0	0.0	42.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		627			779			85			82	
Approach Delay, s/veh		3.0			3.9			43.1			42.5	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.2		78.8		11.2		78.8			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.5			
Max Q Clear (g_c+I1), s			6.1		10.3		5.7		13.6			
Green Ext Time (g_e), s			0.3		5.5		0.3		8.1			
Prob of Phs Call (p_c)			0.98		1.00		0.98		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.01		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			183		11		401		87			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			766		1759		1463		1647			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			843		70		0		18			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			



# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

04/27/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	85	0	627	0	82	0	779
Grp Sat Flow (s), veh/h/ln	0	1792	0	1841	0	1864	0	1752
Q Serve Time (g_s), s	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.1	0.0	8.3	0.0	3.7	0.0	11.6
Perm LT Sat Flow (s_l), veh/h/ln	0	1365	0	743	0	1349	0	819
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1863
Perm LT Eff Green (g_p), s	0.0	6.2	0.0	73.8	0.0	6.2	0.0	73.8
Perm LT Serve Time (g_u), s	0.0	2.5	0.0	62.1	0.0	2.2	0.0	65.5
Perm LT Q Serve Time (g_ps), s	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	48.4	0.0	1.4	0.0	22.9
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	8.3	0.0	1.4	0.0	11.6
Prop LT Inside Lane (P_L)	0.00	0.15	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	170	0	1549	0	180	0	1479
V/C Ratio (X)	0.00	0.50	0.00	0.40	0.00	0.45	0.00	0.53
Avail Cap (c_a), veh/h	0	392	0	1549	0	408	0	1479
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.9	0.0	2.2	0.0	40.7	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.8	0.0	1.8	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.0	0.0	42.5	0.0	3.9
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.8	0.0	1.8	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	2.1	0.0	1.9	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.44	0.00	0.08	0.00	0.06	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

04/27/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	222	26	94	613	573	191				
Future Volume (veh/h)	222	26	94	613	573	191				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	247	29	104	681	637	212				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	280	33	368	1323	805	268				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.18	0.18	0.07	0.71	0.60	0.60				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	54.8	0.0	12.4	7.3	0.0	19.3				
Ln Grp LOS	D	A	B	A	A	B				
Approach Vol, veh/h	277			785	849					
Approach Delay, s/veh	54.8			8.0	19.3					
Approach LOS	D			A	B					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		20.7	9.4	57.6			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			16.7		15.5	3.7	33.7			
Green Ext Time (g_e), s			6.0		0.2	0.1	6.8			
Prob of Phs Call (p_c)			1.00		1.00	0.92	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1568	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		6		1343			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		184		447			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

04/27/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	277	104	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1759	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	13.5	1.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	13.5	1.7	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	649	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.6	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	20.9	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.89	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	314	368	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.88	0.28	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	361	379	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.1	12.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	19.7	0.4	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	54.8	12.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.7	0.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.4	0.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.48	0.09	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	681	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1323	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1323	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

04/27/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	849	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1790	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	31.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	31.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.10	0.00	0.25	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1073	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1073	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	11.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	13.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

HCM 6th TWSC  
7: N Main St & Bank St

04/27/2021

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	36	28	40	389	432	67
Future Vol, veh/h	36	28	40	389	432	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	31	44	432	480	74




Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1037	517	554	0	-	0
Stage 1	517	-	-	-	-	-
Stage 2	520	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	256	558	1016	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	241	558	1016	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	597	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.4	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1016	-	321	-	-
HCM Lane V/C Ratio	0.044	-	0.222	-	-
HCM Control Delay (s)	8.7	0	19.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

HCM 6th TWSC  
8: N Academy St & Bank St

04/27/2021

Intersection						
Int Delay, s/veh	5.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	20	5	54	10	10
Future Vol, veh/h	87	20	5	54	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	97	22	6	60	11	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	69	36	0	0	66
Stage 1	36	-	-	-	-
Stage 2	33	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	936	1037	-	-	1536
Stage 1	986	-	-	-	-
Stage 2	989	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	929	1037	-	-	1536
Mov Cap-2 Maneuver	929	-	-	-	-
Stage 1	986	-	-	-	-
Stage 2	982	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	3.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	947	1536
HCM Lane V/C Ratio	-	-	0.126	0.007
HCM Control Delay (s)	-	-	9.3	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

04/27/2021

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	224	7	17	283	2	13	34	11	6	34	57
Future Vol, veh/h	23	224	7	17	283	2	13	34	11	6	34	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	26	249	8	19	314	2	14	38	12	7	38	63

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	257	0	0	709	659	253	683	662	315
Stage 1	-	-	-	-	-	-	305	305	-	353	353	-
Stage 2	-	-	-	-	-	-	404	354	-	330	309	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	-	1308	-	-	349	384	786	363	382	725
Stage 1	-	-	-	-	-	-	705	662	-	664	631	-
Stage 2	-	-	-	-	-	-	623	630	-	683	660	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1244	-	-	1308	-	-	284	368	786	319	366	725
Mov Cap-2 Maneuver	-	-	-	-	-	-	284	368	-	319	366	-
Stage 1	-	-	-	-	-	-	688	646	-	648	620	-
Stage 2	-	-	-	-	-	-	524	619	-	618	644	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.4			16.4			13.9		
HCM LOS							C			B		












Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	381	1244	-	-	1308	-	-	510
HCM Lane V/C Ratio	0.169	0.021	-	-	0.014	-	-	0.211
HCM Control Delay (s)	16.4	8	0	-	7.8	0	-	13.9
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0	-	-	0.8



# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

04/27/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	545	145	293	519	87	339			
Future Volume (veh/h)	545	145	293	519	87	339			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	606	161	326	577	97	377			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	642	171	583	494	126	819			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.45	0.45	0.31	0.31	0.07	0.44			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	40.1	0.0	28.8	122.4	61.9	19.6			
Ln Grp LOS	D	A	C	F	E	B			
Approach Vol, veh/h	768		903			474			
Approach Delay, s/veh	40.1		88.6			28.3			
Approach LOS	D		F			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		11.4	33.1	45.6			44.4		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		7.0	22.0	46.0			34.0		
Max Allow Headway (MAH), s		3.9	4.5	3.9			5.4		
Max Q Clear (g_c+I1), s		6.8	30.1	38.6			14.8		
Green Ext Time (g_e), s		0.0	0.0	2.0			2.3		
Prob of Phs Call (p_c)		0.91	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	0.40			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1425					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	379			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

HCM 6th Signalized Intersection Capacity Analysis  
 2: N Main St & Franklin St

04/27/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	97	0	768	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1806	0	0	0	0	0
Q Serve Time (g_s), s	4.8	0.0	36.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	4.8	0.0	36.6	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	28.1	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	126	0	814	0	0	0	0	0
V/C Ratio (X)	0.77	0.00	0.94	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	139	0	923	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	41.1	0.0	23.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	20.8	0.0	16.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	61.9	0.0	40.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	2.1	0.0	14.8	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	3.7	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	2.8	0.0	18.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.72	0.00	2.10	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	326	0	0	0	377	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	13.1	0.0	0.0	0.0	12.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	13.1	0.0	0.0	0.0	12.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	583	0	0	0	819	0	0
V/C Ratio (X)	0.00	0.56	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	583	0	0	0	819	0	0
Upstream Filter (I)	0.00	0.76	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	25.8	0.0	0.0	0.0	17.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.9	0.0	0.0	0.0	1.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.8	0.0	0.0	0.0	19.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.7	0.0	0.0	0.0	5.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.4	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

04/27/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.2	0.0	0.0	0.0	5.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.00	0.00	0.39	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	577	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	28.1	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	28.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.21	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	494	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	494	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	31.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	91.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	122.4	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	23.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	2.34	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	57.9
HCM 6th LOS	E

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

04/27/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	10	607	19	50	621	7	19	15	34	3	41	17
Future Volume (veh/h)	10	607	19	50	621	7	19	15	34	3	41	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	11	674	21	56	690	8	21	17	38	3	46	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	49	1469	45	113	1349	15	75	32	55	46	120	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.06	0.06	0.06	0.06	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	3.6	0.0	0.0	43.3	0.0	0.0	41.4	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		706			754			76			49	
Approach Delay, s/veh		3.2			3.6			43.3			41.4	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			10.8		79.2		10.8		79.2			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.6			
Max Q Clear (g_c+I1), s			5.8		11.7		4.2		12.7			
Green Ext Time (g_e), s			0.2		6.6		0.1		7.7			
Prob of Phs Call (p_c)			0.96		1.00		0.96		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			364		10		59		85			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			490		1781		1870		1636			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			854		55		0		18			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

04/27/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	76	0	706	0	49	0	754
Grp Sat Flow (s), veh/h/ln	0	1709	0	1846	0	1929	0	1740
Q Serve Time (g_s), s	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.8	0.0	9.7	0.0	2.2	0.0	10.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1381	0	759	0	1370	0	761
Shared LT Sat Flow (s_sh), veh/h/ln	0	1919	0	1869	0	1939	0	1863
Perm LT Eff Green (g_p), s	0.0	5.8	0.0	74.2	0.0	5.8	0.0	74.2
Perm LT Serve Time (g_u), s	0.0	3.6	0.0	63.5	0.0	2.0	0.0	64.5
Perm LT Q Serve Time (g_ps), s	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	48.7	0.0	2.9	0.0	23.5
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	9.7	0.0	2.2	0.0	10.7
Prop LT Inside Lane (P_L)	0.00	0.28	0.00	0.02	0.00	0.06	0.00	0.07
Lane Grp Cap (c), veh/h	0	161	0	1562	0	167	0	1477
V/C Ratio (X)	0.00	0.47	0.00	0.45	0.00	0.29	0.00	0.51
Avail Cap (c_a), veh/h	0	382	0	1562	0	424	0	1477
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.1	0.0	2.2	0.0	40.4	0.0	2.3
Incr Delay (d2), s/veh	0.0	2.1	0.0	0.9	0.0	1.0	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.3	0.0	3.2	0.0	41.4	0.0	3.6
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	1.9	0.0	1.0	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	2.4	0.0	1.1	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	0.09	0.00	0.04	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

04/27/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.00	0.03	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

04/27/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	190	26	132	631	603	251				
Future Volume (veh/h)	190	26	132	631	603	251				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	211	29	147	701	670	279				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	246	34	320	1353	764	318				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.16	0.16	0.08	0.72	0.61	0.61				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	49.5	0.0	17.6	6.7	0.0	24.1				
Ln Grp LOS	D	A	B	A	A	C				
Approach Vol, veh/h	241			848	949					
Approach Delay, s/veh	49.5			8.6	24.1					
Approach LOS	D			A	C					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		18.7	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			16.2		13.5	4.2	40.4			
Green Ext Time (g_e), s			6.3		0.3	0.1	6.0			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		0.64	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1537	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		7		1254			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		211		522			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

04/27/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	241	147	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1755	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	11.5	2.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	11.5	2.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	591	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	13.8	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.88	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	281	320	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.86	0.46	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	369	325	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.1	16.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	14.5	1.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	49.5	17.6	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.8	1.7	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.0	1.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.39	0.18	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	701	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1353	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1353	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0



HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

04/27/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	949	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1776	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	38.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	38.4	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.12	0.00	0.29	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1082	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.88	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1082	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	24.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.19	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

HCM 6th TWSC  
7: N Main St & Bank St

04/27/2021

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	25	22	46	384	386	25
Future Vol, veh/h	25	22	46	384	386	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	24	51	427	429	28

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	972	443	457	0	-	0
Stage 1	443	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	280	615	1104	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	263	615	1104	-	-	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	591	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1104	-	359	-	-
HCM Lane V/C Ratio	0.046	-	0.145	-	-
HCM Control Delay (s)	8.4	0	16.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection						
Int Delay, s/veh	4.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	11	57	27	20	23
Future Vol, veh/h	60	11	57	27	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	12	63	30	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	148	78	0	0	93
Stage 1	78	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	844	983	-	-	1501
Stage 1	945	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	831	983	-	-	1501
Mov Cap-2 Maneuver	831	-	-	-	-
Stage 1	945	-	-	-	-
Stage 2	939	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	851	1501
HCM Lane V/C Ratio	-	-	0.093	0.015
HCM Control Delay (s)	-	-	9.7	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

04/27/2021

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	33	185	7	17	373	23	13	28	22	3	26	54
Future Vol, veh/h	33	185	7	17	373	23	13	28	22	3	26	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	206	8	19	414	26	14	31	24	3	29	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	440	0	0	214	0	0	794	762	210	777	753	427
Stage 1	-	-	-	-	-	-	284	284	-	465	465	-
Stage 2	-	-	-	-	-	-	510	478	-	312	288	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1120	-	-	1356	-	-	306	335	830	314	339	628
Stage 1	-	-	-	-	-	-	723	676	-	578	563	-
Stage 2	-	-	-	-	-	-	546	556	-	699	674	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1120	-	-	1356	-	-	247	316	830	270	320	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	247	316	-	270	320	-
Stage 1	-	-	-	-	-	-	696	650	-	556	552	-
Stage 2	-	-	-	-	-	-	459	545	-	621	648	-












Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.2			0.3			16.8			14.6		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	376	1120	-	-	1356	-	-	465
HCM Lane V/C Ratio	0.186	0.033	-	-	0.014	-	-	0.198
HCM Control Delay (s)	16.8	8.3	0	-	7.7	0	-	14.6
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0	-	-	0.7

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	431	108	269	432	145	263			
Future Volume (veh/h)	431	108	269	432	145	263			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	479	120	299	480	161	292			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	518	130	683	579	195	992			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.36	0.36	0.36	0.36	0.11	0.53			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	42.2	0.0	23.3	37.2	56.8	12.5			
Ln Grp LOS	D	A	C	D	E	B			
Approach Vol, veh/h	600		779			453			
Approach Delay, s/veh	42.2		31.8			28.3			
Approach LOS	D		C			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		14.9	37.8	37.3			52.7		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	23.0	40.0			40.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		10.0	26.8	30.7			9.8		
Green Ext Time (g_e), s		0.1	0.0	1.6			1.9		
Prob of Phs Call (p_c)		0.98	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	0.15			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1443					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	3			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	362			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

HCM 6th Signalized Intersection Capacity Analysis  
 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	161	0	600	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1808	0	0	0	0	0
Q Serve Time (g_s), s	8.0	0.0	28.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	8.0	0.0	28.7	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	32.8	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	195	0	649	0	0	0	0	0
V/C Ratio (X)	0.82	0.00	0.93	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	804	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	39.2	0.0	27.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	17.5	0.0	14.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	56.8	0.0	42.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.5	0.0	12.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	1.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	4.4	0.0	14.6	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.12	0.00	1.66	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	299	0	0	0	292	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	10.9	0.0	0.0	0.0	7.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.9	0.0	0.0	0.0	7.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	683	0	0	0	992	0	0
V/C Ratio (X)	0.00	0.44	0.00	0.00	0.00	0.29	0.00	0.00
Avail Cap (c_a), veh/h	0	683	0	0	0	992	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.6	0.0	0.0	0.0	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.3	0.0	0.0	0.0	12.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.7	0.0	0.0	0.0	3.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	0.0	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.36	0.00	0.00	0.00	0.22	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	480	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	24.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	24.8	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	579	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	579	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	47	1412	78	94	1345	57	55	82	44	112	86	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	2.8	0.0	0.0	3.5	0.0	0.0	42.9	0.0	0.0	40.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	
Approach Delay, s/veh		2.8			3.5			42.9			40.5	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.8		78.2		11.8		78.2			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			19.0		61.0		19.0		61.0			
Max Allow Headway (MAH), s			5.5		5.4		5.5		5.5			
Max Q Clear (g_c+I1), s			6.7		8.5		4.7		12.0			
Green Ext Time (g_e), s			0.3		4.2		0.2		6.5			
Prob of Phs Call (p_c)			0.98		1.00		0.98		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			138		8		687		63			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1077		1737		1130		1655			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			579		96		0		70			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			



# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	96	0	517	0	60	0	692
Grp Sat Flow (s), veh/h/ln	0	1794	0	1841	0	1818	0	1788
Q Serve Time (g_s), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	6.5	0.0	2.7	0.0	10.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1400	0	793	0	1335	0	905
Shared LT Sat Flow (s_sh), veh/h/ln	0	1933	0	1869	0	1899	0	1865
Perm LT Eff Green (g_p), s	0.0	6.8	0.0	73.2	0.0	6.8	0.0	73.2
Perm LT Serve Time (g_u), s	0.0	4.2	0.0	63.1	0.0	2.2	0.0	66.6
Perm LT Q Serve Time (g_ps), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.6	0.0	51.5	0.0	1.4	0.0	28.4
Serve Time pre Blk (g_fs), s	0.0	2.6	0.0	6.5	0.0	1.4	0.0	10.0
Prop LT Inside Lane (P_L)	0.00	0.12	0.00	0.02	0.00	0.48	0.00	0.06
Lane Grp Cap (c), veh/h	0	182	0	1537	0	198	0	1496
V/C Ratio (X)	0.00	0.53	0.00	0.34	0.00	0.30	0.00	0.46
Avail Cap (c_a), veh/h	0	420	0	1537	0	416	0	1496
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.5	0.0	2.2	0.0	39.6	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.6	0.0	0.9	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	42.9	0.0	2.8	0.0	40.5	0.0	3.5
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.5	0.0	1.3	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	1.7	0.0	1.3	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.06	0.00	0.04	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	0.05	0.00	0.00	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations	W		W	↑	↓	W				
Traffic Volume (veh/h)	128	22	122	593	516	153				
Future Volume (veh/h)	128	22	122	593	516	153				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	142	24	136	659	573	170				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	176	30	512	1420	888	263				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	42.4	0.0	7.0	4.7	0.0	11.8				
Ln Grp LOS	D	A	A	A	A	B				
Approach Vol, veh/h	167			795	743					
Approach Delay, s/veh	42.4			5.1	11.8					
Approach LOS	D			A	B					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		14.6	9.7	57.3			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			12.7		9.6	3.7	22.7			
Green Ext Time (g_e), s			5.8		0.3	0.1	6.6			
Prob of Phs Call (p_c)			1.00		0.98	0.95	1.00			
Prob of Max Out (p_x)			0.00		0.02	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1489	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		10		1385			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		252		411			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	167	136	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1751	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	7.6	1.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.6	1.7	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	717	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.3	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	31.6	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.85	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	207	512	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.27	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	386	519	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.1	6.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.3	0.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	42.4	7.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.2	0.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.6	0.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.23	0.07	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	659	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1420	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1420	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	743	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1796	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.14	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1151	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1151	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4



HCM 2010 Roundabout  
2: N Main St & Franklin St













04/27/2021

Intersection			
Intersection Delay, s/veh	20.8		
Intersection LOS	C		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	599	779	453
Demand Flow Rate, veh/h	611	795	462
Vehicles Circulating, veh/h	305	164	489
Vehicles Exiting, veh/h	654	787	427
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	19.2	23.4	18.6
Approach LOS	C	C	C
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	611	795	462
Cap Entry Lane, veh/h	833	959	693
Entry HV Adj Factor	0.980	0.980	0.981
Flow Entry, veh/h	599	779	453
Cap Entry, veh/h	817	940	680
V/C Ratio	0.734	0.829	0.667
Control Delay, s/veh	19.2	23.4	18.6
LOS	C	C	C
95th %tile Queue, veh	7	10	5

# HCM 6th Signalized Intersection Summary

## 2: N Main St & Franklin St

05/24/2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	431	108	269	432	145	263
Future Volume (veh/h)	431	108	269	432	145	263
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	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	479	120	299	480	161	292
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	524	467	820	1144	199	1133
Arrive On Green	0.28	0.28	0.44	0.44	0.11	0.61
Sat Flow, veh/h	1853	1648	1870	1585	1781	1870
Grp Volume(v), veh/h	479	120	299	480	161	292
Grp Sat Flow(s),veh/h/ln	1853	1648	1870	1585	1781	1870
Q Serve(g_s), s	22.5	5.1	9.6	10.9	7.9	6.6
Cycle Q Clear(g_c), s	22.5	5.1	9.6	10.9	7.9	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	524	467	820	1144	199	1133
V/C Ratio(X)	0.91	0.26	0.36	0.42	0.81	0.26
Avail Cap(c_a), veh/h	700	623	820	1144	416	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.84	0.84	1.00	1.00
Uniform Delay (d), s/veh	31.2	24.9	16.9	5.0	39.0	8.3
Incr Delay (d2), s/veh	13.6	0.3	1.1	1.0	7.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	2.0	4.3	8.1	3.9	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.8	25.2	17.9	6.0	46.6	8.8
LnGrp LOS	D	C	B	A	D	A
Approach Vol, veh/h	599		779			453
Approach Delay, s/veh	40.9		10.6			22.2
Approach LOS	D		B			C
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.1	44.5			59.5	30.5
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	21.0	20.0			46.0	34.0
Max Q Clear Time (g_c+I1), s	9.9	12.9			8.6	24.5
Green Ext Time (p_c), s	0.3	2.3			2.0	1.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			23.4			
HCM 6th LOS			C			

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	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	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1412	78	94	1346	57	55	82	44	112	86	
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Sat Flow, veh/h	8	1737	96	63	1655	70	138	1077	580	688	1130	0
Grp Volume(v), veh/h	517	0	0	692	0	0	96	0	0	60	0	0
Grp Sat Flow(s),veh/h/ln	1841	0	0	1788	0	0	1795	0	0	1818	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0	10.0	0.0	0.0	4.7	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.02		0.05	0.06		0.04	0.12		0.32	0.48		0.00
Lane Grp Cap(c), veh/h	1538	0	0	1496	0	0	181	0	0	197	0	
V/C Ratio(X)	0.34	0.00	0.00	0.46	0.00	0.00	0.53	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1538	0	0	1496	0	0	400	0	0	398	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	0.0	2.5	0.0	0.0	40.6	0.0	0.0	39.7	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	2.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	2.7	0.0	0.0	2.2	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.8	0.0	0.0	3.5	0.0	0.0	43.0	0.0	0.0	40.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96				60
Approach Delay, s/veh		2.8			3.5			43.0				40.5
Approach LOS		A			A			D				D
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.8		78.2		11.8		78.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		18.0		62.0		18.0		62.0				
Max Q Clear Time (g_c+I1), s		6.7		8.5		4.7		12.0				
Green Ext Time (p_c), s		0.3		4.2		0.2		6.5				

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Summary  
 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	128	22	122	593	516	153
Future Volume (veh/h)	128	22	122	593	516	153
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	142	24	136	659	573	170
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	176	30	512	1420	888	263
Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64
Sat Flow, veh/h	1489	252	1781	1870	1385	411
Grp Volume(v), veh/h	167	0	136	659	0	743
Grp Sat Flow(s),veh/h/ln	1751	0	1781	1870	0	1796
Q Serve(g_s), s	7.6	0.0	1.7	10.7	0.0	20.7
Cycle Q Clear(g_c), s	7.6	0.0	1.7	10.7	0.0	20.7
Prop In Lane	0.85	0.14	1.00			0.23
Lane Grp Cap(c), veh/h	207	0	512	1420	0	1151
V/C Ratio(X)	0.81	0.00	0.27	0.46	0.00	0.65
Avail Cap(c_a), veh/h	386	0	519	1420	0	1151
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	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	6.7	3.6	0.0	9.0
Incr Delay (d2), s/veh	7.3	0.0	0.3	1.1	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.6	3.3	0.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.4	0.0	7.0	4.7	0.0	11.8
LnGrp LOS	D	A	A	A	A	B
Approach Vol, veh/h	167			795	743	
Approach Delay, s/veh	42.4			5.1	11.8	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		14.6	9.7	57.3
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+I1), s		12.7		9.6	3.7	22.7
Green Ext Time (p_c), s		5.8		0.3	0.1	6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.7			
HCM 6th LOS			B			

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	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	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1412	78	94	1346	57	55	82	44	112	86	
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Sat Flow, veh/h	8	1737	96	63	1655	70	138	1077	580	688	1130	0
Grp Volume(v), veh/h	517	0	0	692	0	0	96	0	0	60	0	0
Grp Sat Flow(s),veh/h/ln	1841	0	0	1788	0	0	1795	0	0	1818	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0	10.0	0.0	0.0	4.7	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.02		0.05	0.06		0.04	0.12		0.32	0.48		0.00
Lane Grp Cap(c), veh/h	1538	0	0	1496	0	0	181	0	0	197	0	
V/C Ratio(X)	0.34	0.00	0.00	0.46	0.00	0.00	0.53	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1538	0	0	1496	0	0	400	0	0	398	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	0.0	2.5	0.0	0.0	40.6	0.0	0.0	39.7	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	2.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	2.7	0.0	0.0	2.2	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.8	0.0	0.0	3.5	0.0	0.0	43.0	0.0	0.0	40.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	A
Approach Delay, s/veh		2.8			3.5			43.0			40.5	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.8		78.2		11.8		78.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		18.0		62.0		18.0		62.0				
Max Q Clear Time (g_c+I1), s		6.7		8.5		4.7		12.0				
Green Ext Time (p_c), s		0.3		4.2		0.2		6.5				

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Summary  
 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	128	22	122	593	516	153
Future Volume (veh/h)	128	22	122	593	516	153
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	142	24	136	659	573	170
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	176	30	512	1420	888	263
Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64
Sat Flow, veh/h	1489	252	1781	1870	1385	411
Grp Volume(v), veh/h	167	0	136	659	0	743
Grp Sat Flow(s),veh/h/ln	1751	0	1781	1870	0	1796
Q Serve(g_s), s	7.6	0.0	1.7	10.7	0.0	20.7
Cycle Q Clear(g_c), s	7.6	0.0	1.7	10.7	0.0	20.7
Prop In Lane	0.85	0.14	1.00			0.23
Lane Grp Cap(c), veh/h	207	0	512	1420	0	1151
V/C Ratio(X)	0.81	0.00	0.27	0.46	0.00	0.65
Avail Cap(c_a), veh/h	386	0	519	1420	0	1151
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	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	6.7	3.6	0.0	9.0
Incr Delay (d2), s/veh	7.3	0.0	0.3	1.1	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.6	3.3	0.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.4	0.0	7.0	4.7	0.0	11.8
LnGrp LOS	D	A	A	A	A	B
Approach Vol, veh/h	167			795	743	
Approach Delay, s/veh	42.4			5.1	11.8	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		14.6	9.7	57.3
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+I1), s		12.7		9.6	3.7	22.7
Green Ext Time (p_c), s		5.8		0.3	0.1	6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-



HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4

















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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	47	1412	78	94	1346	57	55	82	44	112	86	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	2.8	0.0	0.0	3.5	0.0	0.0	43.0	0.0	0.0	40.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	
Approach Delay, s/veh		2.8			3.5			43.0			40.5	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4			6			8	
Case No			8.0		8.0			8.0			8.0	
Phs Duration (G+Y+Rc), s			11.8		78.2			11.8			78.2	
Change Period (Y+Rc), s			5.0		5.0			5.0			5.0	
Max Green (Gmax), s			18.0		62.0			18.0			62.0	
Max Allow Headway (MAH), s			5.5		5.4			5.5			5.5	
Max Q Clear (g_c+I1), s			6.7		8.5			4.7			12.0	
Green Ext Time (g_e), s			0.3		4.2			0.2			6.5	
Prob of Phs Call (p_c)			0.98		1.00			0.98			1.00	
Prob of Max Out (p_x)			0.02		0.00			0.00			0.00	
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7			1			3	
Mvmt Sat Flow, veh/h			138		8			688			63	
<b>Through Movement Data</b>												
Assigned Mvmt			2		4			6			8	
Mvmt Sat Flow, veh/h			1077		1737			1130			1655	
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14			16			18	
Mvmt Sat Flow, veh/h			580		96			0			70	
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	96	0	517	0	60	0	692
Grp Sat Flow (s), veh/h/ln	0	1795	0	1841	0	1818	0	1788
Q Serve Time (g_s), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	6.5	0.0	2.7	0.0	10.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1400	0	793	0	1335	0	905
Shared LT Sat Flow (s_sh), veh/h/ln	0	1933	0	1869	0	1899	0	1865
Perm LT Eff Green (g_p), s	0.0	6.8	0.0	73.2	0.0	6.8	0.0	73.2
Perm LT Serve Time (g_u), s	0.0	4.1	0.0	63.2	0.0	2.2	0.0	66.7
Perm LT Q Serve Time (g_ps), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.6	0.0	51.5	0.0	1.4	0.0	28.4
Serve Time pre Blk (g_fs), s	0.0	2.6	0.0	6.5	0.0	1.4	0.0	10.0
Prop LT Inside Lane (P_L)	0.00	0.12	0.00	0.02	0.00	0.48	0.00	0.06
Lane Grp Cap (c), veh/h	0	181	0	1538	0	197	0	1496
V/C Ratio (X)	0.00	0.53	0.00	0.34	0.00	0.30	0.00	0.46
Avail Cap (c_a), veh/h	0	400	0	1538	0	398	0	1496
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.6	0.0	2.2	0.0	39.7	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.6	0.0	0.9	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.0	0.0	2.8	0.0	40.5	0.0	3.5
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.5	0.0	1.3	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	1.7	0.0	1.3	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.06	0.00	0.04	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	0.05	0.00	0.00	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

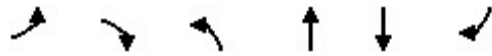
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	128	22	122	593	516	153				
Future Volume (veh/h)	128	22	122	593	516	153				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	142	24	136	659	573	170				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	176	30	512	1420	888	263				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	42.4	0.0	7.0	4.7	0.0	11.8				
Ln Grp LOS	D	A	A	A	A	B				
Approach Vol, veh/h	167			795	743					
Approach Delay, s/veh	42.4			5.1	11.8					
Approach LOS	D			A	B					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		14.6	9.7	57.3			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			12.7		9.6	3.7	22.7			
Green Ext Time (g_e), s			5.8		0.3	0.1	6.6			
Prob of Phs Call (p_c)			1.00		0.98	0.95	1.00			
Prob of Max Out (p_x)			0.00		0.02	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1489	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		10		1385			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		252		411			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	167	136	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1751	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	7.6	1.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.6	1.7	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	717	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.3	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	31.6	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.85	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	207	512	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.27	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	386	519	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.1	6.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.3	0.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	42.4	7.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.2	0.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.6	0.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.23	0.07	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	659	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1420	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1420	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0



# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	743	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1796	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.14	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1151	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1151	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	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	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1412	78	94	1345	57	55	82	44	112	86	
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Sat Flow, veh/h	8	1737	96	63	1655	70	138	1077	579	687	1130	0
Grp Volume(v), veh/h	517	0	0	692	0	0	96	0	0	60	0	0
Grp Sat Flow(s),veh/h/ln	1841	0	0	1788	0	0	1794	0	0	1818	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0	10.0	0.0	0.0	4.7	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.02		0.05	0.06		0.04	0.12		0.32	0.48		0.00
Lane Grp Cap(c), veh/h	1537	0	0	1496	0	0	182	0	0	198	0	
V/C Ratio(X)	0.34	0.00	0.00	0.46	0.00	0.00	0.53	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1537	0	0	1496	0	0	420	0	0	416	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	0.0	2.5	0.0	0.0	40.5	0.0	0.0	39.6	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	2.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	2.7	0.0	0.0	2.2	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.8	0.0	0.0	3.5	0.0	0.0	42.9	0.0	0.0	40.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96				60
Approach Delay, s/veh		2.8			3.5			42.9				40.5
Approach LOS		A			A			D				D
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.8		78.2		11.8		78.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		61.0		19.0		61.0				
Max Q Clear Time (g_c+I1), s		6.7		8.5		4.7		12.0				
Green Ext Time (p_c), s		0.3		4.2		0.2		6.5				

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Summary  
 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	128	22	122	593	516	153
Future Volume (veh/h)	128	22	122	593	516	153
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	142	24	136	659	573	170
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	176	30	512	1420	888	263
Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64
Sat Flow, veh/h	1489	252	1781	1870	1385	411
Grp Volume(v), veh/h	167	0	136	659	0	743
Grp Sat Flow(s),veh/h/ln	1751	0	1781	1870	0	1796
Q Serve(g_s), s	7.6	0.0	1.7	10.7	0.0	20.7
Cycle Q Clear(g_c), s	7.6	0.0	1.7	10.7	0.0	20.7
Prop In Lane	0.85	0.14	1.00			0.23
Lane Grp Cap(c), veh/h	207	0	512	1420	0	1151
V/C Ratio(X)	0.81	0.00	0.27	0.46	0.00	0.65
Avail Cap(c_a), veh/h	386	0	519	1420	0	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	6.7	3.6	0.0	9.0
Incr Delay (d2), s/veh	7.3	0.0	0.3	1.1	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.6	3.3	0.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.4	0.0	7.0	4.7	0.0	11.8
LnGrp LOS	D	A	A	A	A	B
Approach Vol, veh/h	167			795	743	
Approach Delay, s/veh	42.4			5.1	11.8	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		14.6	9.7	57.3
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+l1), s		12.7		9.6	3.7	22.7
Green Ext Time (p_c), s		5.8		0.3	0.1	6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-



HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	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	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1412	78	94	1345	57	55	82	44	112	86	
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Sat Flow, veh/h	8	1737	96	63	1655	70	138	1077	579	687	1130	0
Grp Volume(v), veh/h	517	0	0	692	0	0	96	0	0	60	0	0
Grp Sat Flow(s),veh/h/ln	1841	0	0	1788	0	0	1794	0	0	1818	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0	10.0	0.0	0.0	4.7	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.02		0.05	0.06		0.04	0.12		0.32	0.48		0.00
Lane Grp Cap(c), veh/h	1537	0	0	1496	0	0	182	0	0	198	0	
V/C Ratio(X)	0.34	0.00	0.00	0.46	0.00	0.00	0.53	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1537	0	0	1496	0	0	420	0	0	416	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	0.0	2.5	0.0	0.0	40.5	0.0	0.0	39.6	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	2.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	2.7	0.0	0.0	2.2	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.8	0.0	0.0	3.5	0.0	0.0	42.9	0.0	0.0	40.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	A
Approach Delay, s/veh		2.8			3.5			42.9			40.5	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.8		78.2		11.8		78.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		61.0		19.0		61.0				
Max Q Clear Time (g_c+I1), s		6.7		8.5		4.7		12.0				
Green Ext Time (p_c), s		0.3		4.2		0.2		6.5				

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Summary  
 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	128	22	122	593	516	153
Future Volume (veh/h)	128	22	122	593	516	153
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	142	24	136	659	573	170
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	176	30	512	1420	888	263
Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64
Sat Flow, veh/h	1489	252	1781	1870	1385	411
Grp Volume(v), veh/h	167	0	136	659	0	743
Grp Sat Flow(s),veh/h/ln	1751	0	1781	1870	0	1796
Q Serve(g_s), s	7.6	0.0	1.7	10.7	0.0	20.7
Cycle Q Clear(g_c), s	7.6	0.0	1.7	10.7	0.0	20.7
Prop In Lane	0.85	0.14	1.00			0.23
Lane Grp Cap(c), veh/h	207	0	512	1420	0	1151
V/C Ratio(X)	0.81	0.00	0.27	0.46	0.00	0.65
Avail Cap(c_a), veh/h	386	0	519	1420	0	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	6.7	3.6	0.0	9.0
Incr Delay (d2), s/veh	7.3	0.0	0.3	1.1	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.6	3.3	0.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.4	0.0	7.0	4.7	0.0	11.8
LnGrp LOS	D	A	A	A	A	B
Approach Vol, veh/h	167			795	743	
Approach Delay, s/veh	42.4			5.1	11.8	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		14.6	9.7	57.3
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+I1), s		12.7		9.6	3.7	22.7
Green Ext Time (p_c), s		5.8		0.3	0.1	6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		












Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4



# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	431	108	269	432	145	263			
Future Volume (veh/h)	431	108	269	432	145	263			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	479	120	299	480	161	292			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	518	130	683	579	195	992			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.36	0.36	0.36	0.36	0.11	0.53			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	42.2	0.0	23.3	37.2	56.8	12.5			
Ln Grp LOS	D	A	C	D	E	B			
Approach Vol, veh/h	600		779			453			
Approach Delay, s/veh	42.2		31.8			28.3			
Approach LOS	D		C			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		14.9	37.8	37.3			52.7		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	23.0	40.0			40.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		10.0	26.8	30.7			9.8		
Green Ext Time (g_e), s		0.1	0.0	1.6			1.9		
Prob of Phs Call (p_c)		0.98	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	0.15			0.00		
Left-Turn Movement Data									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1443					
Through Movement Data									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	3			1870		
Right-Turn Movement Data									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	362			0		
Left Lane Group Data									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	161	0	600	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1808	0	0	0	0	0
Q Serve Time (g_s), s	8.0	0.0	28.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	8.0	0.0	28.7	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	32.8	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	195	0	649	0	0	0	0	0
V/C Ratio (X)	0.82	0.00	0.93	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	804	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	39.2	0.0	27.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	17.5	0.0	14.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	56.8	0.0	42.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.5	0.0	12.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	1.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	4.4	0.0	14.6	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.12	0.00	1.66	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	299	0	0	0	292	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	10.9	0.0	0.0	0.0	7.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.9	0.0	0.0	0.0	7.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	683	0	0	0	992	0	0
V/C Ratio (X)	0.00	0.44	0.00	0.00	0.00	0.29	0.00	0.00
Avail Cap (c_a), veh/h	0	683	0	0	0	992	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.6	0.0	0.0	0.0	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.0	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.3	0.0	0.0	0.0	12.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.7	0.0	0.0	0.0	3.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	0.0	0.0	3.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.36	0.00	0.00	0.00	0.22	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	480	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	24.8	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	24.8	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	579	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	579	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.11	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	47	1412	78	94	1345	57	55	82	44	112	86	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	2.8	0.0	0.0	3.5	0.0	0.0	42.9	0.0	0.0	40.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	
Approach Delay, s/veh		2.8			3.5			42.9			40.5	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.8		78.2		11.8		78.2			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			19.0		61.0		19.0		61.0			
Max Allow Headway (MAH), s			5.5		5.4		5.5		5.5			
Max Q Clear (g_c+I1), s			6.7		8.5		4.7		12.0			
Green Ext Time (g_e), s			0.3		4.2		0.2		6.5			
Prob of Phs Call (p_c)			0.98		1.00		0.98		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			138		8		687		63			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1077		1737		1130		1655			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			579		96		0		70			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment		L+T+R		L+T+R		L+T		L+T+R				

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	96	0	517	0	60	0	692
Grp Sat Flow (s), veh/h/ln	0	1794	0	1841	0	1818	0	1788
Q Serve Time (g_s), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	6.5	0.0	2.7	0.0	10.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1400	0	793	0	1335	0	905
Shared LT Sat Flow (s_sh), veh/h/ln	0	1933	0	1869	0	1899	0	1865
Perm LT Eff Green (g_p), s	0.0	6.8	0.0	73.2	0.0	6.8	0.0	73.2
Perm LT Serve Time (g_u), s	0.0	4.2	0.0	63.1	0.0	2.2	0.0	66.6
Perm LT Q Serve Time (g_ps), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.6	0.0	51.5	0.0	1.4	0.0	28.4
Serve Time pre Blk (g_fs), s	0.0	2.6	0.0	6.5	0.0	1.4	0.0	10.0
Prop LT Inside Lane (P_L)	0.00	0.12	0.00	0.02	0.00	0.48	0.00	0.06
Lane Grp Cap (c), veh/h	0	182	0	1537	0	198	0	1496
V/C Ratio (X)	0.00	0.53	0.00	0.34	0.00	0.30	0.00	0.46
Avail Cap (c_a), veh/h	0	420	0	1537	0	416	0	1496
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.5	0.0	2.2	0.0	39.6	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.6	0.0	0.9	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	42.9	0.0	2.8	0.0	40.5	0.0	3.5
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.5	0.0	1.3	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	1.7	0.0	1.3	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.06	0.00	0.04	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
<b>Lane Assignment</b>								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	0.05	0.00	0.00	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-



HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-












Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	431	108	269	432	145	263			
Future Volume (veh/h)	431	108	269	432	145	263			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	479	120	299	480	161	292			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	522	131	737	625	139	986			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.36	0.36	0.39	0.39	0.08	0.53			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	38.2	0.0	21.1	31.2	168.1	12.7			
Ln Grp LOS	D	A	C	C	F	B			
Approach Vol, veh/h	600		779			453			
Approach Delay, s/veh	38.2		27.3			67.9			
Approach LOS	D		C			E			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		12.0	40.5	37.5			52.5		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		7.0	22.0	46.0			34.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		9.0	25.7	30.5			9.9		
Green Ext Time (g_e), s		0.0	0.0	2.0			1.8		
Prob of Phs Call (p_c)		0.98	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	0.02			0.00		
Left-Turn Movement Data									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1443					
Through Movement Data									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	3			1870		
Right-Turn Movement Data									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	362			0		
Left Lane Group Data									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

HCM 6th Signalized Intersection Capacity Analysis  
 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	161	0	600	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1808	0	0	0	0	0
Q Serve Time (g_s), s	7.0	0.0	28.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.0	0.0	28.5	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	35.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	139	0	654	0	0	0	0	0
V/C Ratio (X)	1.16	0.00	0.92	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	139	0	924	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	41.5	0.0	27.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	126.6	0.0	10.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	168.1	0.0	38.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	11.9	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	4.9	0.0	2.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	7.9	0.0	13.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	2.01	0.00	1.57	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	299	0	0	0	292	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	10.4	0.0	0.0	0.0	7.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.4	0.0	0.0	0.0	7.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	737	0	0	0	986	0	0
V/C Ratio (X)	0.00	0.41	0.00	0.00	0.00	0.30	0.00	0.00
Avail Cap (c_a), veh/h	0	737	0	0	0	986	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	19.7	0.0	0.0	0.0	11.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.1	0.0	0.0	0.0	12.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	0.0	0.0	3.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	0.0	0.0	3.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	0.00	0.00	0.23	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	480	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	23.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	23.7	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	625	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	625	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	23.7	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	31.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

















### Intersection Summary

HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	47	1412	78	94	1346	57	55	82	44	112	86	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	2.8	0.0	0.0	3.5	0.0	0.0	43.0	0.0	0.0	40.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	
Approach Delay, s/veh		2.8			3.5			43.0			40.5	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.8		78.2		11.8		78.2			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.5		5.4		5.5		5.5			
Max Q Clear (g_c+I1), s			6.7		8.5		4.7		12.0			
Green Ext Time (g_e), s			0.3		4.2		0.2		6.5			
Prob of Phs Call (p_c)			0.98		1.00		0.98		1.00			
Prob of Max Out (p_x)			0.02		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			138		8		688		63			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1077		1737		1130		1655			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			580		96		0		70			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	96	0	517	0	60	0	692
Grp Sat Flow (s), veh/h/ln	0	1795	0	1841	0	1818	0	1788
Q Serve Time (g_s), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	6.5	0.0	2.7	0.0	10.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1400	0	793	0	1335	0	905
Shared LT Sat Flow (s_sh), veh/h/ln	0	1933	0	1869	0	1899	0	1865
Perm LT Eff Green (g_p), s	0.0	6.8	0.0	73.2	0.0	6.8	0.0	73.2
Perm LT Serve Time (g_u), s	0.0	4.1	0.0	63.2	0.0	2.2	0.0	66.7
Perm LT Q Serve Time (g_ps), s	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.6	0.0	51.5	0.0	1.4	0.0	28.4
Serve Time pre Blk (g_fs), s	0.0	2.6	0.0	6.5	0.0	1.4	0.0	10.0
Prop LT Inside Lane (P_L)	0.00	0.12	0.00	0.02	0.00	0.48	0.00	0.06
Lane Grp Cap (c), veh/h	0	181	0	1538	0	197	0	1496
V/C Ratio (X)	0.00	0.53	0.00	0.34	0.00	0.30	0.00	0.46
Avail Cap (c_a), veh/h	0	400	0	1538	0	398	0	1496
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.6	0.0	2.2	0.0	39.7	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.4	0.0	0.6	0.0	0.9	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.0	0.0	2.8	0.0	40.5	0.0	3.5
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.5	0.0	1.3	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	1.7	0.0	1.3	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.06	0.00	0.04	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.32	0.00	0.05	0.00	0.00	0.00	0.04
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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



HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations	W		W	↑	↓	W				
Traffic Volume (veh/h)	128	22	122	593	516	153				
Future Volume (veh/h)	128	22	122	593	516	153				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	142	24	136	659	573	170				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	176	30	512	1420	888	263				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	42.4	0.0	7.0	4.7	0.0	11.8				
Ln Grp LOS	D	A	A	A	A	B				
Approach Vol, veh/h	167			795	743					
Approach Delay, s/veh	42.4			5.1	11.8					
Approach LOS	D			A	B					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		14.6	9.7	57.3			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			12.7		9.6	3.7	22.7			
Green Ext Time (g_e), s			5.8		0.3	0.1	6.6			
Prob of Phs Call (p_c)			1.00		0.98	0.95	1.00			
Prob of Max Out (p_x)			0.00		0.02	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1489	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		10		1385			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		252		411			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	167	136	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1751	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	7.6	1.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.6	1.7	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	717	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.3	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	31.6	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.85	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	207	512	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.81	0.27	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	386	519	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.1	6.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	7.3	0.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	42.4	7.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.2	0.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.6	0.6	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.23	0.07	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	659	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1420	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.46	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1420	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	743	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1796	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	20.7	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.14	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1151	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1151	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	10.2	8.6	9.4
HCM LOS	A	B	A	A












Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	24%	18%	1%	20%
Vol Thru, %	54%	81%	92%	37%
Vol Right, %	22%	1%	7%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	161	242	163
LT Vol	9	29	3	32
Through Vol	20	130	223	61
RT Vol	8	2	16	70
Lane Flow Rate	41	179	269	181
Geometry Grp	1	1	1	1
Degree of Util (X)	0.059	0.24	0.348	0.242
Departure Headway (Hd)	5.155	4.827	4.661	4.819
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	689	741	769	741
Service Time	3.23	2.883	2.712	2.877
HCM Lane V/C Ratio	0.06	0.242	0.35	0.244
HCM Control Delay	8.6	9.4	10.2	9.4
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.2	0.9	1.6	0.9



# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	511	153	351	534	186	350			
Future Volume (veh/h)	511	153	351	534	186	350			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	568	170	390	593	207	389			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	585	175	520	440	238	873			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.42	0.42	0.28	0.28	0.13	0.47			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	51.2	0.0	36.0	198.1	66.0	17.8			
Ln Grp LOS	D	A	D	F	E	B			
Approach Vol, veh/h	739		983			596			
Approach Delay, s/veh	51.2		133.8			34.5			
Approach LOS	D		F			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		17.0	30.0	43.0			47.0		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	25.0	38.0			42.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		12.3	27.0	38.2			14.6		
Green Ext Time (g_e), s		0.0	0.0	0.0			2.7		
Prob of Phs Call (p_c)		0.99	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	1.00			0.00		
Left-Turn Movement Data									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1385					
Through Movement Data									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
Right-Turn Movement Data									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	414			0		
Left Lane Group Data									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					



# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	207	0	739	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1801	0	0	0	0	0
Q Serve Time (g_s), s	10.3	0.0	36.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	10.3	0.0	36.2	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	238	0	761	0	0	0	0	0
V/C Ratio (X)	0.87	0.00	0.97	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	761	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	38.2	0.0	25.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	27.7	0.0	25.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	66.0	0.0	51.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	14.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	1.8	0.0	5.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	6.3	0.0	20.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.59	0.00	2.29	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	390	0	0	0	389	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	17.1	0.0	0.0	0.0	12.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.1	0.0	0.0	0.0	12.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	520	0	0	0	873	0	0
V/C Ratio (X)	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00
Avail Cap (c_a), veh/h	0	520	0	0	0	873	0	0
Upstream Filter (I)	0.00	0.64	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	29.7	0.0	0.0	0.0	16.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	6.3	0.0	0.0	0.0	1.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.0	0.0	0.0	0.0	17.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.6	0.0	0.0	0.0	5.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.4	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.5	0.0	0.0	0.0	5.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.61	0.00	0.00	0.00	0.38	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

















Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	593	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.23	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	440	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.35	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	440	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	32.5	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	165.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	198.1	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	20.3	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	29.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	38.2	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	81.9
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis  
4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1434	59	113	1343	15	60	54	61	80	105	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.1	0.0	0.0	42.3	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	
Approach Delay, s/veh		3.2			4.3			43.1			42.3	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.5		78.5		11.5		78.5			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.5			
Max Q Clear (g_c+I1), s			6.2		11.2		5.9		15.3			
Green Ext Time (g_e), s			0.3		6.0		0.3		9.0			
Prob of Phs Call (p_c)			0.99		1.00		0.99		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.01		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			188		12		402		85			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			757		1754		1462		1644			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			845		72		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	665	0	85	0	833
Grp Sat Flow (s), veh/h/ln	0	1790	0	1838	0	1864	0	1748
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	9.2	0.0	3.9	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1363	0	708	0	1346	0	792
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1864
Perm LT Eff Green (g_p), s	0.0	6.5	0.0	73.5	0.0	6.5	0.0	73.5
Perm LT Serve Time (g_u), s	0.0	2.6	0.0	60.3	0.0	2.2	0.0	64.4
Perm LT Q Serve Time (g_ps), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	47.1	0.0	1.5	0.0	22.2
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	9.2	0.0	1.5	0.0	13.3
Prop LT Inside Lane (P_L)	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	175	0	1542	0	185	0	1471
V/C Ratio (X)	0.00	0.51	0.00	0.43	0.00	0.46	0.00	0.57
Avail Cap (c_a), veh/h	0	392	0	1542	0	409	0	1471
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.8	0.0	2.3	0.0	40.6	0.0	2.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.9	0.0	1.8	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.2	0.0	42.3	0.0	4.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.0	0.0	1.8	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.4	0.0	1.9	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.09	0.00	0.06	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	229	73	130	660	643	197				
Future Volume (veh/h)	229	73	130	660	643	197				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	254	81	144	733	714	219				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	262	83	290	1288	796	244				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	76.3	0.0	19.8	9.0	0.0	28.5				
Ln Grp LOS	E	A	B	A	A	C				
Approach Vol, veh/h	336			877	933					
Approach Delay, s/veh	76.3			10.8	28.5					
Approach LOS	E			B	C					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		23.0	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			20.0		19.4	4.6	42.9			
Green Ext Time (g_e), s			6.7		0.0	0.1	4.9			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1308	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		5		1373			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		417		421			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	336	144	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1730	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	600	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.76	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	346	290	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.97	0.50	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	346	294	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.7	18.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	40.6	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	76.3	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.2	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.1	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.72	0.19	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	733	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1288	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1288	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	933	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1795	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1041	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1041	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	18.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C



HCM 6th TWSC  
7: N Main St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7

HCM 2010 Roundabout  
2: N Main St & Franklin St













04/27/2021

Intersection			
Intersection Delay, s/veh	64.8		
Intersection LOS	F		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	738	983	596
Demand Flow Rate, veh/h	752	1003	608
Vehicles Circulating, veh/h	398	211	579
Vehicles Exiting, veh/h	816	976	571
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	54.2	80.1	52.5
Approach LOS	F	F	F
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	752	1003	608
Cap Entry Lane, veh/h	759	915	633
Entry HV Adj Factor	0.981	0.980	0.981
Flow Entry, veh/h	738	983	596
Cap Entry, veh/h	745	897	621
V/C Ratio	0.991	1.096	0.960
Control Delay, s/veh	54.2	80.1	52.5
LOS	F	F	F
95th %tile Queue, veh	16	25	13

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	511	153	351	534	186	350			
Future Volume (veh/h)	511	153	351	534	186	350			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	568	170	390	593	207	389			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	617	549	676	1101	247	1040			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.33	0.33	0.36	0.36	0.14	0.56			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	45.3	22.6	25.5	7.9	45.1	12.2			
Ln Grp LOS	D	C	C	A	D	B			
Approach Vol, veh/h	738		983			596			
Approach Delay, s/veh	40.0		14.9			23.6			
Approach LOS	D		B			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	9.0			4.0		
Phs Duration (G+Y+Rc), s		17.5	37.5	35.0			55.0		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		21.0	20.0	34.0			46.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		12.2	18.4	28.5			12.5		
Green Ext Time (g_e), s		0.4	0.8	1.4			2.8		
Prob of Phs Call (p_c)		0.99	1.00	1.00			1.00		
Prob of Max Out (p_x)		0.02	0.00	0.64			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1853					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	0			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	1648			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L					

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	207	0	568	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1853	0	0	0	0	0
Q Serve Time (g_s), s	10.2	0.0	26.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	10.2	0.0	26.5	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1853	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	32.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	247	0	617	0	0	0	0	0
V/C Ratio (X)	0.84	0.00	0.92	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	416	0	700	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	37.8	0.0	28.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	7.3	0.0	16.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	45.1	0.0	45.3	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	11.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	2.8	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	4.9	0.0	14.3	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.25	0.00	1.63	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	390	0	0	0	389	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	15.1	0.0	0.0	0.0	10.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	15.1	0.0	0.0	0.0	10.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	676	0	0	0	1040	0	0
V/C Ratio (X)	0.00	0.58	0.00	0.00	0.00	0.37	0.00	0.00
Avail Cap (c_a), veh/h	0	676	0	0	0	1040	0	0
Upstream Filter (I)	0.00	0.64	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	23.2	0.0	0.0	0.0	11.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.0	0.0	1.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.5	0.0	0.0	0.0	12.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.6	0.0	0.0	0.0	4.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.3	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.0	0.0	0.0	0.0	4.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.50	0.00	0.00	0.00	0.31	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	593	170	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1648	0	0	0	0	0
Q Serve Time (g_s), s	0.0	16.4	6.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.4	6.9	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	30.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1101	549	0	0	0	0	0
V/C Ratio (X)	0.00	0.54	0.31	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1101	623	0	0	0	0	0
Upstream Filter (I)	0.00	0.64	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	6.7	22.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.9	22.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.6	2.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	13.0	2.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.32	0.31	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

















### Intersection Summary

HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1434	59	113	1343	15	60	54	61	80	105	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.1	0.0	0.0	42.3	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	
Approach Delay, s/veh		3.2			4.3			43.1			42.3	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.5		78.5		11.5		78.5			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.5			
Max Q Clear (g_c+I1), s			6.2		11.2		5.9		15.3			
Green Ext Time (g_e), s			0.3		6.0		0.3		9.0			
Prob of Phs Call (p_c)			0.99		1.00		0.99		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.01		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			188		12		402		85			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			757		1754		1462		1644			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			845		72		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			



# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	665	0	85	0	833
Grp Sat Flow (s), veh/h/ln	0	1790	0	1838	0	1864	0	1748
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	9.2	0.0	3.9	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1363	0	708	0	1346	0	792
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1864
Perm LT Eff Green (g_p), s	0.0	6.5	0.0	73.5	0.0	6.5	0.0	73.5
Perm LT Serve Time (g_u), s	0.0	2.6	0.0	60.3	0.0	2.2	0.0	64.4
Perm LT Q Serve Time (g_ps), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	47.1	0.0	1.5	0.0	22.2
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	9.2	0.0	1.5	0.0	13.3
Prop LT Inside Lane (P_L)	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	175	0	1542	0	185	0	1471
V/C Ratio (X)	0.00	0.51	0.00	0.43	0.00	0.46	0.00	0.57
Avail Cap (c_a), veh/h	0	392	0	1542	0	409	0	1471
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.8	0.0	2.3	0.0	40.6	0.0	2.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.9	0.0	1.8	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.2	0.0	42.3	0.0	4.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.0	0.0	1.8	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.4	0.0	1.9	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.09	0.00	0.07	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	229	73	130	660	643	197				
Future Volume (veh/h)	229	73	130	660	643	197				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	254	81	144	733	714	219				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	262	83	290	1288	796	244				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	76.3	0.0	19.8	9.0	0.0	28.5				
Ln Grp LOS	E	A	B	A	A	C				
Approach Vol, veh/h	336			877	933					
Approach Delay, s/veh	76.3			10.8	28.5					
Approach LOS	E			B	C					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		23.0	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			20.0		19.4	4.6	42.9			
Green Ext Time (g_e), s			6.7		0.0	0.1	4.9			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1308	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		5		1373			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		417		421			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	336	144	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1730	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	600	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.76	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	346	290	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.97	0.50	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	346	294	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.7	18.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	40.6	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	76.3	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.2	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.1	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.72	0.19	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	733	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1288	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1288	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	933	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1795	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1041	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1041	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	18.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

HCM 6th TWSC  
7: N Main St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7



















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HCM 6th Edition methodology does not support exclusive ped or hold phases.

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1434	59	113	1343	15	60	54	61	80	105	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.1	0.0	0.0	42.3	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	
Approach Delay, s/veh		3.2			4.3			43.1			42.3	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.5		78.5		11.5		78.5			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.5			
Max Q Clear (g_c+I1), s			6.2		11.2		5.9		15.3			
Green Ext Time (g_e), s			0.3		6.0		0.3		9.0			
Prob of Phs Call (p_c)			0.99		1.00		0.99		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.01		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			188		12		402		85			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			757		1754		1462		1644			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			845		72		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	665	0	85	0	833
Grp Sat Flow (s), veh/h/ln	0	1790	0	1838	0	1864	0	1748
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	9.2	0.0	3.9	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1363	0	708	0	1346	0	792
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1864
Perm LT Eff Green (g_p), s	0.0	6.5	0.0	73.5	0.0	6.5	0.0	73.5
Perm LT Serve Time (g_u), s	0.0	2.6	0.0	60.3	0.0	2.2	0.0	64.4
Perm LT Q Serve Time (g_ps), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	47.1	0.0	1.5	0.0	22.2
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	9.2	0.0	1.5	0.0	13.3
Prop LT Inside Lane (P_L)	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	175	0	1542	0	185	0	1471
V/C Ratio (X)	0.00	0.51	0.00	0.43	0.00	0.46	0.00	0.57
Avail Cap (c_a), veh/h	0	392	0	1542	0	409	0	1471
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.8	0.0	2.3	0.0	40.6	0.0	2.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.9	0.0	1.8	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.2	0.0	42.3	0.0	4.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.0	0.0	1.8	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.4	0.0	1.9	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.09	0.00	0.06	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	229	73	130	660	643	197				
Future Volume (veh/h)	229	73	130	660	643	197				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	254	81	144	733	714	219				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	262	83	290	1288	796	244				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	76.3	0.0	19.8	9.0	0.0	28.5				
Ln Grp LOS	E	A	B	A	A	C				
Approach Vol, veh/h	336			877	933					
Approach Delay, s/veh	76.3			10.8	28.5					
Approach LOS	E			B	C					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		23.0	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			20.0		19.4	4.6	42.9			
Green Ext Time (g_e), s			6.7		0.0	0.1	4.9			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1308	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		5		1373			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		417		421			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	336	144	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1730	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	600	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.76	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	346	290	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.97	0.50	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	346	294	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.7	18.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	40.6	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	76.3	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.2	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.1	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.72	0.19	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	733	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1288	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1288	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	933	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1795	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1041	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1041	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	18.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		T
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-



Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7

















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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1434	59	113	1343	15	60	54	61	80	105	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.1	0.0	0.0	42.3	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	
Approach Delay, s/veh		3.2			4.3			43.1			42.3	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.5		78.5		11.5		78.5			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.5			
Max Q Clear (g_c+I1), s			6.2		11.2		5.9		15.3			
Green Ext Time (g_e), s			0.3		6.0		0.3		9.0			
Prob of Phs Call (p_c)			0.99		1.00		0.99		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.01		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			188		12		402		85			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			757		1754		1462		1644			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			845		72		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	665	0	85	0	833
Grp Sat Flow (s), veh/h/ln	0	1790	0	1838	0	1864	0	1748
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	9.2	0.0	3.9	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1363	0	708	0	1346	0	792
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1864
Perm LT Eff Green (g_p), s	0.0	6.5	0.0	73.5	0.0	6.5	0.0	73.5
Perm LT Serve Time (g_u), s	0.0	2.6	0.0	60.3	0.0	2.2	0.0	64.4
Perm LT Q Serve Time (g_ps), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	47.1	0.0	1.5	0.0	22.2
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	9.2	0.0	1.5	0.0	13.3
Prop LT Inside Lane (P_L)	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	175	0	1542	0	185	0	1471
V/C Ratio (X)	0.00	0.51	0.00	0.43	0.00	0.46	0.00	0.57
Avail Cap (c_a), veh/h	0	392	0	1542	0	409	0	1471
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.8	0.0	2.3	0.0	40.6	0.0	2.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.9	0.0	1.8	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.2	0.0	42.3	0.0	4.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.0	0.0	1.8	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.4	0.0	1.9	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.09	0.00	0.07	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
<b>Lane Assignment</b>								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	229	73	130	660	643	197				
Future Volume (veh/h)	229	73	130	660	643	197				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	254	81	144	733	714	219				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	262	83	290	1288	796	244				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	76.3	0.0	19.8	9.0	0.0	28.5				
Ln Grp LOS	E	A	B	A	A	C				
Approach Vol, veh/h	336			877	933					
Approach Delay, s/veh	76.3			10.8	28.5					
Approach LOS	E			B	C					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		23.0	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			20.0		19.4	4.6	42.9			
Green Ext Time (g_e), s			6.7		0.0	0.1	4.9			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1308	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		5		1373			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		417		421			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	336	144	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1730	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	600	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.76	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	346	290	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.97	0.50	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	346	294	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.7	18.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	40.6	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	76.3	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.2	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.1	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.72	0.19	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	733	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1288	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1288	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0



# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	933	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1795	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1041	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1041	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	18.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	50	1433	59	113	1343	15	60	54	61	80	105	
Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Sat Flow, veh/h	12	1754	72	85	1644	19	188	757	845	402	1462	0
Grp Volume(v), veh/h	665	0	0	833	0	0	89	0	0	85	0	0
Grp Sat Flow(s),veh/h/ln	1838	0	0	1748	0	0	1790	0	0	1864	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.2	0.0	0.0	13.3	0.0	0.0	4.2	0.0	0.0	3.9	0.0	0.0
Prop In Lane	0.02		0.04	0.07		0.01	0.16		0.47	0.28		0.00
Lane Grp Cap(c), veh/h	1542	0	0	1471	0	0	175	0	0	185	0	
V/C Ratio(X)	0.43	0.00	0.00	0.57	0.00	0.00	0.51	0.00	0.00	0.46	0.00	
Avail Cap(c_a), veh/h	1542	0	0	1471	0	0	411	0	0	428	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.3	0.0	0.0	2.7	0.0	0.0	40.7	0.0	0.0	40.5	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.6	0.0	0.0	2.3	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	3.5	0.0	0.0	2.0	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.0	0.0	0.0	42.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	A
Approach Delay, s/veh		3.2			4.3			43.0			42.3	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.5		78.5		11.5		78.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		61.0		19.0		61.0				
Max Q Clear Time (g_c+I1), s		6.2		11.2		5.9		15.3				
Green Ext Time (p_c), s		0.3		6.0		0.3		9.0				

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Summary  
 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	229	73	130	660	643	197
Future Volume (veh/h)	229	73	130	660	643	197
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	81	144	733	714	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	262	83	290	1288	796	244
Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58
Sat Flow, veh/h	1308	417	1781	1870	1373	421
Grp Volume(v), veh/h	336	0	144	733	0	933
Grp Sat Flow(s),veh/h/ln	1730	0	1781	1870	0	1795
Q Serve(g_s), s	17.4	0.0	2.6	18.0	0.0	40.9
Cycle Q Clear(g_c), s	17.4	0.0	2.6	18.0	0.0	40.9
Prop In Lane	0.76	0.24	1.00			0.23
Lane Grp Cap(c), veh/h	346	0	290	1288	0	1041
V/C Ratio(X)	0.97	0.00	0.50	0.57	0.00	0.90
Avail Cap(c_a), veh/h	346	0	294	1288	0	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.7	0.0	18.5	7.2	0.0	16.5
Incr Delay (d2), s/veh	40.6	0.0	1.3	1.8	0.0	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.9	6.8	0.0	18.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.3	0.0	19.8	9.0	0.0	28.5
LnGrp LOS	E	A	B	A	A	C
Approach Vol, veh/h	336			877	933	
Approach Delay, s/veh	76.3			10.8	28.5	
Approach LOS	E			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		23.0	9.8	57.2
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+l1), s		20.0		19.4	4.6	42.9
Green Ext Time (p_c), s		6.7		0.0	0.1	4.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			28.7			
HCM 6th LOS			C			

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-



Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	50	1433	59	113	1343	15	60	54	61	80	105	
Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Sat Flow, veh/h	12	1754	72	85	1644	19	188	757	845	402	1462	0
Grp Volume(v), veh/h	665	0	0	833	0	0	89	0	0	85	0	0
Grp Sat Flow(s),veh/h/ln	1838	0	0	1748	0	0	1790	0	0	1864	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.2	0.0	0.0	13.3	0.0	0.0	4.2	0.0	0.0	3.9	0.0	0.0
Prop In Lane	0.02		0.04	0.07		0.01	0.16		0.47	0.28		0.00
Lane Grp Cap(c), veh/h	1542	0	0	1471	0	0	175	0	0	185	0	
V/C Ratio(X)	0.43	0.00	0.00	0.57	0.00	0.00	0.51	0.00	0.00	0.46	0.00	
Avail Cap(c_a), veh/h	1542	0	0	1471	0	0	411	0	0	428	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.3	0.0	0.0	2.7	0.0	0.0	40.7	0.0	0.0	40.5	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.6	0.0	0.0	2.3	0.0	0.0	1.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	3.5	0.0	0.0	2.0	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.0	0.0	0.0	42.3	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	A
Approach Delay, s/veh		3.2			4.3			43.0			42.3	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.5		78.5		11.5		78.5				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		61.0		19.0		61.0				
Max Q Clear Time (g_c+I1), s		6.2		11.2		5.9		15.3				
Green Ext Time (p_c), s		0.3		6.0		0.3		9.0				

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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

# HCM 6th Signalized Intersection Summary

## 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	229	73	130	660	643	197
Future Volume (veh/h)	229	73	130	660	643	197
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	254	81	144	733	714	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	262	83	290	1288	796	244
Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58
Sat Flow, veh/h	1308	417	1781	1870	1373	421
Grp Volume(v), veh/h	336	0	144	733	0	933
Grp Sat Flow(s),veh/h/ln	1730	0	1781	1870	0	1795
Q Serve(g_s), s	17.4	0.0	2.6	18.0	0.0	40.9
Cycle Q Clear(g_c), s	17.4	0.0	2.6	18.0	0.0	40.9
Prop In Lane	0.76	0.24	1.00			0.23
Lane Grp Cap(c), veh/h	346	0	290	1288	0	1041
V/C Ratio(X)	0.97	0.00	0.50	0.57	0.00	0.90
Avail Cap(c_a), veh/h	346	0	294	1288	0	1041
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.7	0.0	18.5	7.2	0.0	16.5
Incr Delay (d2), s/veh	40.6	0.0	1.3	1.8	0.0	11.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.9	6.8	0.0	18.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.3	0.0	19.8	9.0	0.0	28.5
LnGrp LOS	E	A	B	A	A	C
Approach Vol, veh/h	336			877	933	
Approach Delay, s/veh	76.3			10.8	28.5	
Approach LOS	E			B	C	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		23.0	9.8	57.2
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+l1), s		20.0		19.4	4.6	42.9
Green Ext Time (p_c), s		6.7		0.0	0.1	4.9
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			28.7			
HCM 6th LOS			C			

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		












Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7



# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	511	153	351	534	186	350			
Future Volume (veh/h)	511	153	351	534	186	350			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	568	170	390	593	207	389			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	593	177	508	431	238	861			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.43	0.43	0.27	0.27	0.13	0.46			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	46.7	0.0	37.3	211.8	66.0	18.2			
Ln Grp LOS	D	A	D	F	E	B			
Approach Vol, veh/h	739		983			596			
Approach Delay, s/veh	46.7		142.6			34.8			
Approach LOS	D		F			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		17.0	29.5	43.5			46.5		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	23.0	40.0			40.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		12.3	26.5	37.8			14.7		
Green Ext Time (g_e), s		0.0	0.0	0.8			2.6		
Prob of Phs Call (p_c)		0.99	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	1.00			0.00		
Left-Turn Movement Data									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1385					
Through Movement Data									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
Right-Turn Movement Data									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	414			0		
Left Lane Group Data									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	207	0	739	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1801	0	0	0	0	0
Q Serve Time (g_s), s	10.3	0.0	35.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	10.3	0.0	35.8	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	238	0	772	0	0	0	0	0
V/C Ratio (X)	0.87	0.00	0.96	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	801	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	38.2	0.0	24.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	27.7	0.0	21.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	66.0	0.0	46.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	14.6	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	1.8	0.0	4.7	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	6.3	0.0	19.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.59	0.00	2.18	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	390	0	0	0	389	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	17.3	0.0	0.0	0.0	12.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.3	0.0	0.0	0.0	12.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	508	0	0	0	861	0	0
V/C Ratio (X)	0.00	0.77	0.00	0.00	0.00	0.45	0.00	0.00
Avail Cap (c_a), veh/h	0	508	0	0	0	861	0	0
Upstream Filter (I)	0.00	0.65	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	30.2	0.0	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	7.1	0.0	0.0	0.0	1.7	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.3	0.0	0.0	0.0	18.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.7	0.0	0.0	0.0	5.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.4	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.7	0.0	0.0	0.0	5.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.62	0.00	0.00	0.00	0.38	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

















Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	593	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.23	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	431	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.38	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	431	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	32.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	179.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	211.8	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	30.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	40.6	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	84.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis  
4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1433	59	113	1343	15	60	54	61	80	105	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.0	0.0	0.0	42.3	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	
Approach Delay, s/veh		3.2			4.3			43.0			42.3	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.5		78.5		11.5		78.5			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			19.0		61.0		19.0		61.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.5			
Max Q Clear (g_c+I1), s			6.2		11.2		5.9		15.3			
Green Ext Time (g_e), s			0.3		6.0		0.3		9.0			
Prob of Phs Call (p_c)			0.99		1.00		0.99		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			188		12		402		85			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			757		1754		1462		1644			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			845		72		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	665	0	85	0	833
Grp Sat Flow (s), veh/h/ln	0	1790	0	1838	0	1864	0	1748
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	9.2	0.0	3.9	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1363	0	708	0	1346	0	792
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1864
Perm LT Eff Green (g_p), s	0.0	6.5	0.0	73.5	0.0	6.5	0.0	73.5
Perm LT Serve Time (g_u), s	0.0	2.6	0.0	60.3	0.0	2.2	0.0	64.3
Perm LT Q Serve Time (g_ps), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	47.1	0.0	1.5	0.0	22.2
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	9.2	0.0	1.5	0.0	13.3
Prop LT Inside Lane (P_L)	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	175	0	1542	0	185	0	1471
V/C Ratio (X)	0.00	0.51	0.00	0.43	0.00	0.46	0.00	0.57
Avail Cap (c_a), veh/h	0	411	0	1542	0	428	0	1471
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.7	0.0	2.3	0.0	40.5	0.0	2.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.9	0.0	1.8	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.0	0.0	3.2	0.0	42.3	0.0	4.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.0	0.0	1.8	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.4	0.0	1.9	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.09	0.00	0.06	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-



Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81












Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	309	0	0	850	809	305	815	793	344
Stage 1	-	-	-	-	-	-	405	405	-	384	384	-
Stage 2	-	-	-	-	-	-	445	404	-	431	409	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1252	-	-	280	314	735	296	321	699
Stage 1	-	-	-	-	-	-	622	598	-	639	611	-
Stage 2	-	-	-	-	-	-	592	599	-	603	596	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1195	-	-	1252	-	-	211	292	735	247	299	699
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	292	-	247	299	-
Stage 1	-	-	-	-	-	-	590	568	-	606	599	-
Stage 2	-	-	-	-	-	-	479	587	-	522	566	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0.4			20.5			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	1195	-	-	1252	-	-	405
HCM Lane V/C Ratio	0.229	0.042	-	-	0.016	-	-	0.376
HCM Control Delay (s)	20.5	8.1	0	-	7.9	0	-	19.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0	-	-	1.7

HCM 6th Signalized Intersection Capacity Analysis  
 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	511	153	351	534	186	350			
Future Volume (veh/h)	511	153	351	534	186	350			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	568	170	390	593	207	389			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	605	181	596	505	139	845			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.44	0.44	0.32	0.32	0.08	0.45			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	39.7	0.0	30.0	122.3	297.9	18.9			
Ln Grp LOS	D	A	C	F	F	B			
Approach Vol, veh/h	739		983			596			
Approach Delay, s/veh	39.7		85.6			115.8			
Approach LOS	D		F			F			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		12.0	33.7	44.3			45.7		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		7.0	22.0	46.0			34.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		9.0	30.7	37.2			15.0		
Green Ext Time (g_e), s		0.0	0.0	2.1			2.4		
Prob of Phs Call (p_c)		0.99	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	0.27			0.00		
Left-Turn Movement Data									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1385					
Through Movement Data									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
Right-Turn Movement Data									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	414			0		
Left Lane Group Data									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	207	0	739	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1801	0	0	0	0	0
Q Serve Time (g_s), s	7.0	0.0	35.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.0	0.0	35.2	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	28.7	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	139	0	787	0	0	0	0	0
V/C Ratio (X)	1.49	0.00	0.94	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	139	0	921	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	41.5	0.0	24.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	256.4	0.0	15.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	297.9	0.0	39.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	14.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	9.9	0.0	3.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	12.9	0.0	17.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	3.28	0.00	2.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	17.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	390	0	0	0	389	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	16.2	0.0	0.0	0.0	13.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.2	0.0	0.0	0.0	13.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	596	0	0	0	845	0	0
V/C Ratio (X)	0.00	0.65	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	596	0	0	0	845	0	0
Upstream Filter (I)	0.00	0.64	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	26.4	0.0	0.0	0.0	17.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.6	0.0	0.0	0.0	1.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.0	0.0	0.0	0.0	18.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.1	0.0	0.0	0.0	5.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.4	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.7	0.0	0.0	0.0	5.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.00	0.00	0.39	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	593	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	28.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	28.7	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.23	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	505	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	505	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	30.7	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	91.6	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	122.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	12.8	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	23.5	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

















### Intersection Summary

HCM 6th Ctrl Delay	78.7
HCM 6th LOS	E

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Future Volume (veh/h)	11	564	23	54	688	8	13	30	38	22	55	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	627	26	60	764	9	14	33	42	24	61	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	50	1434	59	113	1343	15	60	54	61	80	105	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.2	0.0	0.0	4.3	0.0	0.0	43.1	0.0	0.0	42.3	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		665			833			89			85	
Approach Delay, s/veh		3.2			4.3			43.1			42.3	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4			6			8	
Case No			8.0		8.0			8.0			8.0	
Phs Duration (G+Y+Rc), s			11.5		78.5			11.5			78.5	
Change Period (Y+Rc), s			5.0		5.0			5.0			5.0	
Max Green (Gmax), s			18.0		62.0			18.0			62.0	
Max Allow Headway (MAH), s			5.6		5.4			5.4			5.5	
Max Q Clear (g_c+I1), s			6.2		11.2			5.9			15.3	
Green Ext Time (g_e), s			0.3		6.0			0.3			9.0	
Prob of Phs Call (p_c)			0.99		1.00			0.99			1.00	
Prob of Max Out (p_x)			0.01		0.00			0.01			0.00	
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7			1			3	
Mvmt Sat Flow, veh/h			188		12			402			85	
<b>Through Movement Data</b>												
Assigned Mvmt			2		4			6			8	
Mvmt Sat Flow, veh/h			757		1754			1462			1644	
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14			16			18	
Mvmt Sat Flow, veh/h			845		72			0			19	
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment		L+T+R		L+T+R		L+T		L+T+R				

HCM 6th Signalized Intersection Capacity Analysis  
4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	665	0	85	0	833
Grp Sat Flow (s), veh/h/ln	0	1790	0	1838	0	1864	0	1748
Q Serve Time (g_s), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	9.2	0.0	3.9	0.0	13.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1363	0	708	0	1346	0	792
Shared LT Sat Flow (s_sh), veh/h/ln	0	1930	0	1869	0	1918	0	1864
Perm LT Eff Green (g_p), s	0.0	6.5	0.0	73.5	0.0	6.5	0.0	73.5
Perm LT Serve Time (g_u), s	0.0	2.6	0.0	60.3	0.0	2.2	0.0	64.4
Perm LT Q Serve Time (g_ps), s	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	2.1	0.0	47.1	0.0	1.5	0.0	22.2
Serve Time pre Blk (g_fs), s	0.0	2.1	0.0	9.2	0.0	1.5	0.0	13.3
Prop LT Inside Lane (P_L)	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.07
Lane Grp Cap (c), veh/h	0	175	0	1542	0	185	0	1471
V/C Ratio (X)	0.00	0.51	0.00	0.43	0.00	0.46	0.00	0.57
Avail Cap (c_a), veh/h	0	392	0	1542	0	409	0	1471
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	40.8	0.0	2.3	0.0	40.6	0.0	2.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.9	0.0	1.8	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.2	0.0	42.3	0.0	4.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	2.0	0.0	1.8	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	2.4	0.0	1.9	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.09	0.00	0.06	0.00	0.22
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
<b>Lane Assignment</b>								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	0.04	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	7.9
HCM 6th LOS	A

### Notes

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



HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	229	73	130	660	643	197				
Future Volume (veh/h)	229	73	130	660	643	197				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	254	81	144	733	714	219				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	262	83	290	1288	796	244				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	76.3	0.0	19.8	9.0	0.0	28.5				
Ln Grp LOS	E	A	B	A	A	C				
Approach Vol, veh/h	336			877	933					
Approach Delay, s/veh	76.3			10.8	28.5					
Approach LOS	E			B	C					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		23.0	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			20.0		19.4	4.6	42.9			
Green Ext Time (g_e), s			6.7		0.0	0.1	4.9			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1308	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		5		1373			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		417		421			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

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Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	336	144	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1730	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	17.4	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	600	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	11.2	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.76	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	346	290	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.97	0.50	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	346	294	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.7	18.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	40.6	1.3	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	76.3	19.8	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.2	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.1	1.9	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.72	0.19	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	733	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1288	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1288	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	933	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1795	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	40.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	0.23	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1041	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.90	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1041	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	18.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	1.35	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	44	57	86	415	472	81
Future Vol, veh/h	44	57	86	415	472	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	63	96	461	524	90

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1222	569	614	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	198	522	965	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	522	965	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	276	-	-
HCM Lane V/C Ratio	0.099	-	0.407	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	1.9	-	-

Intersection						
Int Delay, s/veh	6.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	145	22	5	89	12	10
Future Vol, veh/h	145	22	5	89	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	161	24	6	99	13	11

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	93	56	0	0	105
Stage 1	56	-	-	-	-
Stage 2	37	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	907	1011	-	-	1486
Stage 1	967	-	-	-	-
Stage 2	985	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	899	1011	-	-	1486
Mov Cap-2 Maneuver	899	-	-	-	-
Stage 1	967	-	-	-	-
Stage 2	976	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	912	1486
HCM Lane V/C Ratio	-	-	0.203	0.009
HCM Control Delay (s)	-	-	10	7.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.8	0

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
Future Vol, veh/h	45	270	8	18	292	36	14	36	12	28	36	73
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	50	300	9	20	324	40	16	40	13	31	40	81
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.5	13.9	9.9	10.5
HCM LOS	B	B	A	B












Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	23%	14%	5%	20%
Vol Thru, %	58%	84%	84%	26%
Vol Right, %	19%	2%	10%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	323	346	137
LT Vol	14	45	18	28
Through Vol	36	270	292	36
RT Vol	12	8	36	73
Lane Flow Rate	69	359	384	152
Geometry Grp	1	1	1	1
Degree of Util (X)	0.116	0.512	0.539	0.239
Departure Headway (Hd)	6.049	5.136	5.044	5.652
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	591	700	715	633
Service Time	4.104	3.171	3.078	3.7
HCM Lane V/C Ratio	0.117	0.513	0.537	0.24
HCM Control Delay	9.9	13.5	13.9	10.5
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.4	2.9	3.2	0.9



# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	591	187	325	558	127	379			
Future Volume (veh/h)	591	187	325	558	127	379			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	657	208	361	620	141	421			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	680	215	482	408	139	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.50	0.50	0.26	0.26	0.08	0.39			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	43.6	0.0	38.5	275.8	122.7	24.8			
Ln Grp LOS	D	A	D	F	F	C			
Approach Vol, veh/h	866		981			562			
Approach Delay, s/veh	43.6		188.5			49.4			
Approach LOS	D		F			D			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		12.0	28.2	49.8			40.2		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		7.0	22.0	46.0			34.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		9.0	25.2	43.9			17.9		
Green Ext Time (g_e), s		0.0	0.0	0.9			2.5		
Prob of Phs Call (p_c)		0.97	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	1.00			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1365					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	432			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					



## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	141	0	866	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1799	0	0	0	0	0
Q Serve Time (g_s), s	7.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	139	0	896	0	0	0	0	0
V/C Ratio (X)	1.02	0.00	0.97	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	139	0	920	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	41.5	0.0	21.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	81.2	0.0	21.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	122.7	0.0	43.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	16.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	3.1	0.0	5.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	6.2	0.0	21.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.57	0.00	2.48	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	361	0	0	0	421	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	16.0	0.0	0.0	0.0	15.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.0	0.0	0.0	0.0	15.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	482	0	0	0	731	0	0
V/C Ratio (X)	0.00	0.75	0.00	0.00	0.00	0.58	0.00	0.00
Avail Cap (c_a), veh/h	0	482	0	0	0	731	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	30.7	0.0	0.0	0.0	21.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	7.8	0.0	0.0	0.0	3.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.5	0.0	0.0	0.0	24.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.1	0.0	0.0	0.0	6.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.7	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.2	0.0	0.0	0.0	7.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.59	0.00	0.00	0.00	0.50	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	620	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.24	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	408	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	408	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	33.4	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	242.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	275.8	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	27.5	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	36.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.68	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	52.9	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	103.9
HCM 6th LOS	F

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	49	1462	44	111	1341	16	75	33	57	48	124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.2	0.0	0.0	41.2	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	
Approach Delay, s/veh		3.5			4.0			43.2			41.2	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.0		79.0		11.0		79.0			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.6			
Max Q Clear (g_c+I1), s			6.0		13.0		4.3		14.3			
Green Ext Time (g_e), s			0.3		7.3		0.1		8.7			
Prob of Phs Call (p_c)			0.96		1.00		0.96		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			361		10		75		83			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			494		1780		1850		1632			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			855		54		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	80	0	755	0	52	0	810
Grp Sat Flow (s), veh/h/ln	0	1710	0	1844	0	1925	0	1734
Q Serve Time (g_s), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	11.0	0.0	2.3	0.0	12.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	722	0	1366	0	728
Shared LT Sat Flow (s_sh), veh/h/ln	0	1919	0	1869	0	1938	0	1864
Perm LT Eff Green (g_p), s	0.0	6.0	0.0	74.0	0.0	6.0	0.0	74.0
Perm LT Serve Time (g_u), s	0.0	3.7	0.0	61.7	0.0	2.0	0.0	63.0
Perm LT Q Serve Time (g_ps), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	47.4	0.0	2.9	0.0	23.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	11.0	0.0	2.3	0.0	12.3
Prop LT Inside Lane (P_L)	0.00	0.27	0.00	0.02	0.00	0.08	0.00	0.07
Lane Grp Cap (c), veh/h	0	166	0	1556	0	172	0	1468
V/C Ratio (X)	0.00	0.48	0.00	0.49	0.00	0.30	0.00	0.55
Avail Cap (c_a), veh/h	0	382	0	1556	0	423	0	1468
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.0	0.0	2.4	0.0	40.2	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.1	0.0	1.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	0.0	3.5	0.0	41.2	0.0	4.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	2.3	0.0	1.1	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	2.8	0.0	1.2	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.10	0.00	0.04	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.00	0.03	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	196	80	132	178	681	259				
Future Volume (veh/h)	196	80	132	178	681	259				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	218	89	147	198	757	288				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	241	98	216	1292	751	286				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	61.4	0.0	31.4	5.0	0.0	48.8				
Ln Grp LOS	E	A	C	A	A	F				
Approach Vol, veh/h	308			345	1045					
Approach Delay, s/veh	61.4			16.3	48.8					
Approach LOS	E			B	D					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		22.7	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			5.3		17.7	5.1	54.2			
Green Ext Time (g_e), s			1.3		0.0	0.1	0.0			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1217	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		6		1291			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		497		491			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	308	147	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1720	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.7	3.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.7	3.1	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	540	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.71	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	340	216	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.91	0.68	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	345	219	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.2	23.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	26.2	8.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	61.4	31.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.5	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.5	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.0	2.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.58	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	198	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1292	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1292	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	1045	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1782	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.29	0.00	0.28	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1036	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1036	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	48.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	27.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	2.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D



HCM 6th TWSC  
7: N Main St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	270	0	0	935	907	266	908	883	457
Stage 1	-	-	-	-	-	-	382	382	-	497	497	-
Stage 2	-	-	-	-	-	-	553	525	-	411	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1078	-	-	1293	-	-	246	276	773	256	285	604
Stage 1	-	-	-	-	-	-	640	613	-	555	545	-
Stage 2	-	-	-	-	-	-	517	529	-	618	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1078	-	-	1293	-	-	182	253	773	210	261	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	253	-	210	261	-
Stage 1	-	-	-	-	-	-	600	574	-	520	534	-
Stage 2	-	-	-	-	-	-	413	518	-	528	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			21			22.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	1078	-	-	1293	-	-	353
HCM Lane V/C Ratio	0.246	0.054	-	-	0.015	-	-	0.415
HCM Control Delay (s)	21	8.5	0	-	7.8	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2

HCM 2010 Roundabout  
2: N Main St & Franklin St













04/27/2021

Intersection			
Intersection Delay, s/veh	98.0		
Intersection LOS	F		
Approach	WB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	865	981	562
Demand Flow Rate, veh/h	882	1000	573
Vehicles Circulating, veh/h	368	144	670
Vehicles Exiting, veh/h	776	1099	580
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	379	0	0
Ped Cap Adj	0.863	1.000	1.000
Approach Delay, s/veh	169.0	55.6	62.5
Approach LOS	F	F	F
Lane	Left	Left	Left
Designated Moves	LR	TR	LT
Assumed Moves	LR	TR	LT
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	882	1000	573
Cap Entry Lane, veh/h	782	978	578
Entry HV Adj Factor	0.981	0.981	0.980
Flow Entry, veh/h	865	981	562
Cap Entry, veh/h	662	960	567
V/C Ratio	1.308	1.022	0.991
Control Delay, s/veh	169.0	55.6	62.5
LOS	F	F	F
95th %tile Queue, veh	35	21	14

# HCM 6th Signalized Intersection Summary

## 2: N Main St & Franklin St

05/24/2021

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	591	187	325	558	127	379
Future Volume (veh/h)	591	187	325	558	127	379
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	1945	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	657	208	361	620	141	421
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	700	623	669	1166	174	956
Arrive On Green	0.38	0.38	0.36	0.36	0.10	0.51
Sat Flow, veh/h	1853	1648	1870	1585	1781	1870
Grp Volume(v), veh/h	657	208	361	620	141	421
Grp Sat Flow(s),veh/h/ln	1853	1648	1870	1585	1781	1870
Q Serve(g_s), s	30.8	8.1	13.8	15.3	7.0	12.8
Cycle Q Clear(g_c), s	30.8	8.1	13.8	15.3	7.0	12.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	700	623	669	1166	174	956
V/C Ratio(X)	0.94	0.33	0.54	0.53	0.81	0.44
Avail Cap(c_a), veh/h	823	733	669	1166	218	956
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.75	0.75	1.00	1.00
Uniform Delay (d), s/veh	27.0	19.9	23.0	5.2	39.8	13.9
Incr Delay (d2), s/veh	16.7	0.3	2.3	1.3	16.7	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	3.1	6.4	14.0	3.9	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.7	20.2	25.3	6.5	56.5	15.4
LnGrp LOS	D	C	C	A	E	B
Approach Vol, veh/h	865		981			562
Approach Delay, s/veh	38.0		13.4			25.7
Approach LOS	D		B			C
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	13.8	37.2			51.0	39.0
Change Period (Y+Rc), s	5.0	5.0			5.0	5.0
Max Green Setting (Gmax), s	11.0	24.0			40.0	40.0
Max Q Clear Time (g_c+I1), s	9.0	17.3			14.8	32.8
Green Ext Time (p_c), s	0.1	2.8			2.9	1.2
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			25.1			
HCM 6th LOS			C			

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	1462	44	111	1341	16	75	33	57	48	124	
Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Sat Flow, veh/h	10	1780	54	83	1632	19	361	494	855	75	1850	0
Grp Volume(v), veh/h	755	0	0	810	0	0	80	0	0	52	0	0
Grp Sat Flow(s),veh/h/ln	1844	0	0	1734	0	0	1710	0	0	1925	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.0	0.0	0.0	12.3	0.0	0.0	4.0	0.0	0.0	2.3	0.0	0.0
Prop In Lane	0.02		0.03	0.07		0.01	0.27		0.50	0.08		0.00
Lane Grp Cap(c), veh/h	1556	0	0	1468	0	0	166	0	0	172	0	
V/C Ratio(X)	0.49	0.00	0.00	0.55	0.00	0.00	0.48	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1556	0	0	1468	0	0	382	0	0	423	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.4	0.0	0.0	2.5	0.0	0.0	41.0	0.0	0.0	40.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	1.5	0.0	0.0	2.2	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	3.2	0.0	0.0	1.8	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.2	0.0	0.0	41.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	A
Approach Delay, s/veh		3.5			4.0			43.2			41.2	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.0		79.0		11.0		79.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		18.0		62.0		18.0		62.0				
Max Q Clear Time (g_c+I1), s		6.0		13.0		4.3		14.3				
Green Ext Time (p_c), s		0.3		7.3		0.1		8.7				

### Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

### Notes

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

# HCM 6th Signalized Intersection Summary

## 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	196	80	132	178	681	259
Future Volume (veh/h)	196	80	132	178	681	259
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	218	89	147	198	757	288
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	241	98	216	1292	751	286
Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58
Sat Flow, veh/h	1217	497	1781	1870	1291	491
Grp Volume(v), veh/h	308	0	147	198	0	1045
Grp Sat Flow(s),veh/h/ln	1720	0	1781	1870	0	1782
Q Serve(g_s), s	15.7	0.0	3.1	3.3	0.0	52.2
Cycle Q Clear(g_c), s	15.7	0.0	3.1	3.3	0.0	52.2
Prop In Lane	0.71	0.29	1.00			0.28
Lane Grp Cap(c), veh/h	340	0	216	1292	0	1036
V/C Ratio(X)	0.91	0.00	0.68	0.15	0.00	1.01
Avail Cap(c_a), veh/h	345	0	219	1292	0	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	23.2	4.8	0.0	18.8
Incr Delay (d2), s/veh	26.2	0.0	8.2	0.3	0.0	30.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.0	0.0	2.3	1.2	0.0	27.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.4	0.0	31.4	5.0	0.0	48.8
LnGrp LOS	E	A	C	A	A	F
Approach Vol, veh/h	308			345	1045	
Approach Delay, s/veh	61.4			16.3	48.8	
Approach LOS	E			B	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		22.7	9.8	57.2
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+l1), s		5.3		17.7	5.1	54.2
Green Ext Time (p_c), s		1.3		0.0	0.1	0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			44.5			
HCM 6th LOS			D			

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		L		T	
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-



Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	270	0	0	935	907	266	908	883	457
Stage 1	-	-	-	-	-	-	382	382	-	497	497	-
Stage 2	-	-	-	-	-	-	553	525	-	411	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1078	-	-	1293	-	-	246	276	773	256	285	604
Stage 1	-	-	-	-	-	-	640	613	-	555	545	-
Stage 2	-	-	-	-	-	-	517	529	-	618	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1078	-	-	1293	-	-	182	253	773	210	261	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	253	-	210	261	-
Stage 1	-	-	-	-	-	-	600	574	-	520	534	-
Stage 2	-	-	-	-	-	-	413	518	-	528	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			21			22.3		
HCM LOS							C			C		

















Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	1078	-	-	1293	-	-	353
HCM Lane V/C Ratio	0.246	0.054	-	-	0.015	-	-	0.415
HCM Control Delay (s)	21	8.5	0	-	7.8	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

HCM 6th Signalized Intersection Capacity Analysis  
4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	49	1462	44	111	1341	16	75	33	57	48	124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.2	0.0	0.0	41.2	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	
Approach Delay, s/veh		3.5			4.0			43.2			41.2	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.0		79.0		11.0		79.0			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.6			
Max Q Clear (g_c+I1), s			6.0		13.0		4.3		14.3			
Green Ext Time (g_e), s			0.3		7.3		0.1		8.7			
Prob of Phs Call (p_c)			0.96		1.00		0.96		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			361		10		75		83			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			494		1780		1850		1632			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			855		54		0		19			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	80	0	755	0	52	0	810
Grp Sat Flow (s), veh/h/ln	0	1710	0	1844	0	1925	0	1734
Q Serve Time (g_s), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	11.0	0.0	2.3	0.0	12.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	722	0	1366	0	728
Shared LT Sat Flow (s_sh), veh/h/ln	0	1919	0	1869	0	1938	0	1864
Perm LT Eff Green (g_p), s	0.0	6.0	0.0	74.0	0.0	6.0	0.0	74.0
Perm LT Serve Time (g_u), s	0.0	3.7	0.0	61.7	0.0	2.0	0.0	63.0
Perm LT Q Serve Time (g_ps), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	47.4	0.0	2.9	0.0	23.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	11.0	0.0	2.3	0.0	12.3
Prop LT Inside Lane (P_L)	0.00	0.27	0.00	0.02	0.00	0.08	0.00	0.07
Lane Grp Cap (c), veh/h	0	166	0	1556	0	172	0	1468
V/C Ratio (X)	0.00	0.48	0.00	0.49	0.00	0.30	0.00	0.55
Avail Cap (c_a), veh/h	0	382	0	1556	0	423	0	1468
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.0	0.0	2.4	0.0	40.2	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.1	0.0	1.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	0.0	3.5	0.0	41.2	0.0	4.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	2.3	0.0	1.1	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	2.8	0.0	1.2	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.10	0.00	0.04	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.00	0.03	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	196	80	132	178	681	259				
Future Volume (veh/h)	196	80	132	178	681	259				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	218	89	147	198	757	288				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	242	99	218	1287	745	284				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	57.8	0.0	30.1	5.1	0.0	50.7				
Ln Grp LOS	E	A	C	A	A	F				
Approach Vol, veh/h	308			345	1045					
Approach Delay, s/veh	57.8			15.7	50.7					
Approach LOS	E			B	D					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			66.0		22.6	9.8	56.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			61.0		19.0	7.0	51.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			5.3		17.5	5.0	53.2			
Green Ext Time (g_e), s			1.3		0.2	0.1	0.0			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1217	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		6		1291			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		497		491			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	308	147	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1720	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.5	3.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.5	3.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	540	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	53.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	51.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.71	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	342	218	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.90	0.67	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	369	222	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.6	22.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	23.1	7.6	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	57.8	30.1	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.4	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.2	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	8.6	2.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.56	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	198	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1287	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1287	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0



HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	1045	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1782	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	51.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	51.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.29	0.00	0.28	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1029	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1029	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	18.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	32.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	50.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	18.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	28.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	2.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

HCM 6th TWSC  
7: N Main St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	270	0	0	935	907	266	908	883	457
Stage 1	-	-	-	-	-	-	382	382	-	497	497	-
Stage 2	-	-	-	-	-	-	553	525	-	411	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1078	-	-	1293	-	-	246	276	773	256	285	604
Stage 1	-	-	-	-	-	-	640	613	-	555	545	-
Stage 2	-	-	-	-	-	-	517	529	-	618	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1078	-	-	1293	-	-	182	253	773	210	261	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	253	-	210	261	-
Stage 1	-	-	-	-	-	-	600	574	-	520	534	-
Stage 2	-	-	-	-	-	-	413	518	-	528	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			21			22.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	1078	-	-	1293	-	-	353
HCM Lane V/C Ratio	0.246	0.054	-	-	0.015	-	-	0.415
HCM Control Delay (s)	21	8.5	0	-	7.8	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2

















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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	49	1462	44	111	1341	16	75	33	57	48	124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.2	0.0	0.0	41.2	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	
Approach Delay, s/veh		3.5			4.0			43.2			41.2	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.0		79.0		11.0		79.0			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.6			
Max Q Clear (g_c+I1), s			6.0		13.0		4.3		14.3			
Green Ext Time (g_e), s			0.3		7.3		0.1		8.7			
Prob of Phs Call (p_c)			0.96		1.00		0.96		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			361		10		75		83			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			494		1780		1850		1632			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			855		54		0		19			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	80	0	755	0	52	0	810
Grp Sat Flow (s), veh/h/ln	0	1710	0	1844	0	1925	0	1734
Q Serve Time (g_s), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	11.0	0.0	2.3	0.0	12.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	722	0	1366	0	728
Shared LT Sat Flow (s_sh), veh/h/ln	0	1919	0	1869	0	1938	0	1864
Perm LT Eff Green (g_p), s	0.0	6.0	0.0	74.0	0.0	6.0	0.0	74.0
Perm LT Serve Time (g_u), s	0.0	3.7	0.0	61.7	0.0	2.0	0.0	63.0
Perm LT Q Serve Time (g_ps), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	47.4	0.0	2.9	0.0	23.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	11.0	0.0	2.3	0.0	12.3
Prop LT Inside Lane (P_L)	0.00	0.27	0.00	0.02	0.00	0.08	0.00	0.07
Lane Grp Cap (c), veh/h	0	166	0	1556	0	172	0	1468
V/C Ratio (X)	0.00	0.48	0.00	0.49	0.00	0.30	0.00	0.55
Avail Cap (c_a), veh/h	0	382	0	1556	0	423	0	1468
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.0	0.0	2.4	0.0	40.2	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.1	0.0	1.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	0.0	3.5	0.0	41.2	0.0	4.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	2.3	0.0	1.1	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	2.8	0.0	1.2	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.10	0.00	0.04	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.00	0.03	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

### Notes

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



HCM 6th Signalized Intersection Capacity Analysis  
5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	196	80	132	178	681	259				
Future Volume (veh/h)	196	80	132	178	681	259				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	218	89	147	198	757	288				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	241	98	216	1292	751	286				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	61.4	0.0	31.4	5.0	0.0	48.8				
Ln Grp LOS	E	A	C	A	A	F				
Approach Vol, veh/h	308			345	1045					
Approach Delay, s/veh	61.4			16.3	48.8					
Approach LOS	E			B	D					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		22.7	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			5.3		17.7	5.1	54.2			
Green Ext Time (g_e), s			1.3		0.0	0.1	0.0			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1217	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		6		1291			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		497		491			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	308	147	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1720	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.7	3.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.7	3.1	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	540	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.71	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	340	216	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.91	0.68	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	345	219	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.2	23.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	26.2	8.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	61.4	31.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.5	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.5	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.0	2.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.58	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	198	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1292	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1292	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	1045	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1782	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.29	0.00	0.28	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1036	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1036	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	48.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	27.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	2.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	270	0	0	935	907	266	908	883	457
Stage 1	-	-	-	-	-	-	382	382	-	497	497	-
Stage 2	-	-	-	-	-	-	553	525	-	411	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1078	-	-	1293	-	-	246	276	773	256	285	604
Stage 1	-	-	-	-	-	-	640	613	-	555	545	-
Stage 2	-	-	-	-	-	-	517	529	-	618	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1078	-	-	1293	-	-	182	253	773	210	261	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	253	-	210	261	-
Stage 1	-	-	-	-	-	-	600	574	-	520	534	-
Stage 2	-	-	-	-	-	-	413	518	-	528	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			21			22.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	1078	-	-	1293	-	-	353
HCM Lane V/C Ratio	0.246	0.054	-	-	0.015	-	-	0.415
HCM Control Delay (s)	21	8.5	0	-	7.8	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		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	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	1462	44	111	1341	16	75	33	58	48	125	
Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Sat Flow, veh/h	10	1780	54	83	1632	19	360	495	855	75	1850	0
Grp Volume(v), veh/h	755	0	0	810	0	0	80	0	0	52	0	0
Grp Sat Flow(s),veh/h/ln	1844	0	0	1734	0	0	1709	0	0	1925	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	11.0	0.0	0.0	12.3	0.0	0.0	4.0	0.0	0.0	2.3	0.0	0.0
Prop In Lane	0.02		0.03	0.07		0.01	0.27		0.50	0.08		0.00
Lane Grp Cap(c), veh/h	1555	0	0	1467	0	0	166	0	0	173	0	
V/C Ratio(X)	0.49	0.00	0.00	0.55	0.00	0.00	0.48	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1555	0	0	1467	0	0	400	0	0	444	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.4	0.0	0.0	2.5	0.0	0.0	41.0	0.0	0.0	40.2	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	1.5	0.0	0.0	2.2	0.0	0.0	1.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	3.2	0.0	0.0	1.8	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.1	0.0	0.0	41.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	A
Approach Delay, s/veh		3.5			4.0			43.1			41.2	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.1		78.9		11.1		78.9				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		61.0		19.0		61.0				
Max Q Clear Time (g_c+I1), s		6.0		13.0		4.3		14.3				
Green Ext Time (p_c), s		0.3		7.3		0.1		8.7				

### Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

### Notes

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



# HCM 6th Signalized Intersection Summary

## 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	196	80	132	178	681	259
Future Volume (veh/h)	196	80	132	178	681	259
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	218	89	147	198	757	288
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	241	98	216	1292	751	286
Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58
Sat Flow, veh/h	1217	497	1781	1870	1291	491
Grp Volume(v), veh/h	308	0	147	198	0	1045
Grp Sat Flow(s),veh/h/ln	1720	0	1781	1870	0	1782
Q Serve(g_s), s	15.7	0.0	3.1	3.3	0.0	52.2
Cycle Q Clear(g_c), s	15.7	0.0	3.1	3.3	0.0	52.2
Prop In Lane	0.71	0.29	1.00			0.28
Lane Grp Cap(c), veh/h	340	0	216	1292	0	1036
V/C Ratio(X)	0.91	0.00	0.68	0.15	0.00	1.01
Avail Cap(c_a), veh/h	345	0	219	1292	0	1036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	23.2	4.8	0.0	18.8
Incr Delay (d2), s/veh	26.2	0.0	8.2	0.3	0.0	30.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr	0.0	0.0	2.3	1.2	0.0	27.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.4	0.0	31.4	5.0	0.0	48.8
LnGrp LOS	E	A	C	A	A	F
Approach Vol, veh/h	308			345	1045	
Approach Delay, s/veh	61.4			16.3	48.8	
Approach LOS	E			B	D	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		22.7	9.8	57.2
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+l1), s		5.3		17.7	5.1	54.2
Green Ext Time (p_c), s		1.3		0.0	0.1	0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			44.5			
HCM 6th LOS			D			

HCM 6th TWSC  
7: N Main St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	270	0	0	935	907	266	908	883	457
Stage 1	-	-	-	-	-	-	382	382	-	497	497	-
Stage 2	-	-	-	-	-	-	553	525	-	411	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1078	-	-	1293	-	-	246	276	773	256	285	604
Stage 1	-	-	-	-	-	-	640	613	-	555	545	-
Stage 2	-	-	-	-	-	-	517	529	-	618	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1078	-	-	1293	-	-	182	253	773	210	261	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	253	-	210	261	-
Stage 1	-	-	-	-	-	-	600	574	-	520	534	-
Stage 2	-	-	-	-	-	-	413	518	-	528	572	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			21			22.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	1078	-	-	1293	-	-	353
HCM Lane V/C Ratio	0.246	0.054	-	-	0.015	-	-	0.415
HCM Control Delay (s)	21	8.5	0	-	7.8	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2

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HCM 6th Edition methodology does not support exclusive ped or hold phases.

# HCM 6th Signalized Intersection Summary

## 4: Maxwell Ave & Franklin St

05/24/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	20
Future Volume (veh/h)	7	434	24	37	562	24	11	48	28	26	28	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	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	8	482	27	41	624	27	12	53	31	29	31	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	1412	78	94	1345	57	55	82	44	112	86	
Arrive On Green	0.81	0.81	0.81	0.81	0.81	0.81	0.08	0.08	0.08	0.08	0.08	0.00
Sat Flow, veh/h	8	1737	96	63	1655	70	138	1077	579	687	1130	0
Grp Volume(v), veh/h	517	0	0	692	0	0	96	0	0	60	0	0
Grp Sat Flow(s),veh/h/ln	1841	0	0	1788	0	0	1794	0	0	1818	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0	10.0	0.0	0.0	4.7	0.0	0.0	2.7	0.0	0.0
Prop In Lane	0.02		0.05	0.06		0.04	0.12		0.32	0.48		0.00
Lane Grp Cap(c), veh/h	1537	0	0	1496	0	0	182	0	0	198	0	
V/C Ratio(X)	0.34	0.00	0.00	0.46	0.00	0.00	0.53	0.00	0.00	0.30	0.00	
Avail Cap(c_a), veh/h	1537	0	0	1496	0	0	420	0	0	416	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	2.2	0.0	0.0	2.5	0.0	0.0	40.5	0.0	0.0	39.6	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.0	0.0	0.0	2.4	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.0	2.7	0.0	0.0	2.2	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.8	0.0	0.0	3.5	0.0	0.0	42.9	0.0	0.0	40.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		517			692			96			60	A
Approach Delay, s/veh		2.8			3.5			42.9			40.5	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.8		78.2		11.8		78.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		19.0		61.0		19.0		61.0				
Max Q Clear Time (g_c+I1), s		6.7		8.5		4.7		12.0				
Green Ext Time (p_c), s		0.3		4.2		0.2		6.5				

### Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

### Notes

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

HCM 6th Signalized Intersection Summary  
 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	128	22	122	593	516	153
Future Volume (veh/h)	128	22	122	593	516	153
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	142	24	136	659	573	170
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	176	30	512	1420	888	263
Arrive On Green	0.12	0.12	0.08	0.76	0.64	0.64
Sat Flow, veh/h	1489	252	1781	1870	1385	411
Grp Volume(v), veh/h	167	0	136	659	0	743
Grp Sat Flow(s),veh/h/ln	1751	0	1781	1870	0	1796
Q Serve(g_s), s	7.6	0.0	1.7	10.7	0.0	20.7
Cycle Q Clear(g_c), s	7.6	0.0	1.7	10.7	0.0	20.7
Prop In Lane	0.85	0.14	1.00			0.23
Lane Grp Cap(c), veh/h	207	0	512	1420	0	1151
V/C Ratio(X)	0.81	0.00	0.27	0.46	0.00	0.65
Avail Cap(c_a), veh/h	386	0	519	1420	0	1151
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	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	6.7	3.6	0.0	9.0
Incr Delay (d2), s/veh	7.3	0.0	0.3	1.1	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	0.6	3.3	0.0	7.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.4	0.0	7.0	4.7	0.0	11.8
LnGrp LOS	D	A	A	A	A	B
Approach Vol, veh/h	167			795	743	
Approach Delay, s/veh	42.4			5.1	11.8	
Approach LOS	D			A	B	
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.0		14.6	9.7	57.3
Change Period (Y+Rc), s		5.0		5.0	3.0	5.0
Max Green Setting (Gmax), s		62.0		18.0	7.0	52.0
Max Q Clear Time (g_c+I1), s		12.7		9.6	3.7	22.7
Green Ext Time (p_c), s		5.8		0.3	0.1	6.6
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			11.7			
HCM 6th LOS			B			

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	32	71	37	350	319	59
Future Vol, veh/h	32	71	37	350	319	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	79	41	389	354	66

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	858	387	420	0	-	0
Stage 1	387	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	661	1139	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	628	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	661	1139	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	654	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	491	-	-
HCM Lane V/C Ratio	0.036	-	0.233	-	-
HCM Control Delay (s)	8.3	0	14.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-



Intersection						
Int Delay, s/veh	3.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	22	13	101	2	51
Future Vol, veh/h	74	22	13	101	2	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	24	14	112	2	57

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	70	0	0	126
Stage 1	70	-	-	-	-
Stage 2	61	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	993	-	-	1460
Stage 1	953	-	-	-	-
Stage 2	962	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	862	993	-	-	1460
Mov Cap-2 Maneuver	862	-	-	-	-
Stage 1	953	-	-	-	-
Stage 2	961	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	889	1460
HCM Lane V/C Ratio	-	-	0.12	0.002
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Future Vol, veh/h	29	130	2	3	223	16	9	20	8	32	61	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	144	2	3	248	18	10	22	9	36	68	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	146	0	0	545	481	145	488	473	257
Stage 1	-	-	-	-	-	-	209	209	-	263	263	-
Stage 2	-	-	-	-	-	-	336	272	-	225	210	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1298	-	-	1436	-	-	449	485	902	490	490	782
Stage 1	-	-	-	-	-	-	793	729	-	742	691	-
Stage 2	-	-	-	-	-	-	678	685	-	778	728	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1298	-	-	1436	-	-	352	471	902	458	476	782
Mov Cap-2 Maneuver	-	-	-	-	-	-	352	471	-	458	476	-
Stage 1	-	-	-	-	-	-	772	709	-	722	690	-
Stage 2	-	-	-	-	-	-	549	684	-	726	708	-












Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			0.1			13.2			14.3		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	481	1298	-	-	1436	-	-	567
HCM Lane V/C Ratio	0.085	0.025	-	-	0.002	-	-	0.319
HCM Control Delay (s)	13.2	7.8	0	-	7.5	0	-	14.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	1.4

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	591	187	325	558	127	379			
Future Volume (veh/h)	591	187	325	558	127	379			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	657	208	361	620	141	421			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	607	192	544	461	174	831			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.44	0.44	0.29	0.29	0.10	0.44			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	81.7	0.0	32.9	197.8	53.5	20.1			
Ln Grp LOS	F	A	C	F	D	C			
Approach Vol, veh/h	866		981			562			
Approach Delay, s/veh	81.7		137.1			28.5			
Approach LOS	F		F			C			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		13.8	31.2	45.0			45.0		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		12.0	23.0	40.0			40.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		9.0	28.2	42.0			16.5		
Green Ext Time (g_e), s		0.1	0.0	0.0			2.8		
Prob of Phs Call (p_c)		0.97	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	1.00			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1365					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	432			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

HCM 6th Signalized Intersection Capacity Analysis  
 2: N Main St & Franklin St

05/24/2021

Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	141	0	866	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1799	0	0	0	0	0
Q Serve Time (g_s), s	7.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	174	0	800	0	0	0	0	0
V/C Ratio (X)	0.81	0.00	1.08	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	238	0	800	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	39.8	0.0	25.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	13.7	0.0	56.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	53.5	0.0	81.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.0	0.0	16.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	12.6	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	28.7	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.94	0.00	3.26	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	16.6	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	361	0	0	0	421	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	15.3	0.0	0.0	0.0	14.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	15.3	0.0	0.0	0.0	14.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	544	0	0	0	831	0	0
V/C Ratio (X)	0.00	0.66	0.00	0.00	0.00	0.51	0.00	0.00
Avail Cap (c_a), veh/h	0	544	0	0	0	831	0	0
Upstream Filter (I)	0.00	0.78	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	28.0	0.0	0.0	0.0	17.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.9	0.0	0.0	0.0	2.2	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.9	0.0	0.0	0.0	20.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.7	0.0	0.0	0.0	6.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.5	0.0	0.0

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	7.5	0.0	0.0	0.0	6.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	0.00	0.00	0.44	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	620	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	26.2	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.24	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	461	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	461	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.78	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	31.9	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	165.9	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	197.8	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	21.3	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	31.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.16	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	39.7	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

















### Intersection Summary

HCM 6th Ctrl Delay	91.9
HCM 6th LOS	F

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	49	1462	44	111	1341	16	75	33	58	48	125	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.1	0.0	0.0	41.2	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	
Approach Delay, s/veh		3.5			4.0			43.1			41.2	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4			6			8	
Case No			8.0		8.0			8.0			8.0	
Phs Duration (G+Y+Rc), s			11.1		78.9			11.1			78.9	
Change Period (Y+Rc), s			5.0		5.0			5.0			5.0	
Max Green (Gmax), s			19.0		61.0			19.0			61.0	
Max Allow Headway (MAH), s			5.6		5.4			5.4			5.6	
Max Q Clear (g_c+I1), s			6.0		13.0			4.3			14.3	
Green Ext Time (g_e), s			0.3		7.3			0.1			8.7	
Prob of Phs Call (p_c)			0.96		1.00			0.96			1.00	
Prob of Max Out (p_x)			0.01		0.00			0.00			0.00	
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7			1			3	
Mvmt Sat Flow, veh/h			360		10			75			83	
<b>Through Movement Data</b>												
Assigned Mvmt			2		4			6			8	
Mvmt Sat Flow, veh/h			495		1780			1850			1632	
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14			16			18	
Mvmt Sat Flow, veh/h			855		54			0			19	
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment		L+T+R		L+T+R		L+T		L+T+R				

# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

05/24/2021

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	80	0	755	0	52	0	810
Grp Sat Flow (s), veh/h/ln	0	1709	0	1844	0	1925	0	1734
Q Serve Time (g_s), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	11.0	0.0	2.3	0.0	12.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	722	0	1366	0	728
Shared LT Sat Flow (s_sh), veh/h/ln	0	1919	0	1869	0	1938	0	1864
Perm LT Eff Green (g_p), s	0.0	6.1	0.0	73.9	0.0	6.1	0.0	73.9
Perm LT Serve Time (g_u), s	0.0	3.8	0.0	61.6	0.0	2.0	0.0	63.0
Perm LT Q Serve Time (g_ps), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.4	0.0	47.4	0.0	3.0	0.0	22.9
Serve Time pre Blk (g_fs), s	0.0	1.4	0.0	11.0	0.0	2.3	0.0	12.3
Prop LT Inside Lane (P_L)	0.00	0.27	0.00	0.02	0.00	0.08	0.00	0.07
Lane Grp Cap (c), veh/h	0	166	0	1555	0	173	0	1467
V/C Ratio (X)	0.00	0.48	0.00	0.49	0.00	0.30	0.00	0.55
Avail Cap (c_a), veh/h	0	400	0	1555	0	444	0	1467
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.0	0.0	2.4	0.0	40.2	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.1	0.0	1.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.1	0.0	3.5	0.0	41.2	0.0	4.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	2.3	0.0	1.1	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	2.8	0.0	1.1	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.10	0.00	0.04	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 4: Maxwell Ave & Franklin St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.00	0.03	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

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



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HCM 6th Edition methodology does not support exclusive ped or hold phases.

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		R
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

HCM 6th TWSC  
8: N Academy St & Bank St

05/24/2021

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC  
 15: S Academy St/N Academy St & Stockton St

05/24/2021

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	270	0	0	935	907	266	908	883	457
Stage 1	-	-	-	-	-	-	382	382	-	497	497	-
Stage 2	-	-	-	-	-	-	553	525	-	411	386	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1078	-	-	1293	-	-	246	276	773	256	285	604
Stage 1	-	-	-	-	-	-	640	613	-	555	545	-
Stage 2	-	-	-	-	-	-	517	529	-	618	610	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1078	-	-	1293	-	-	182	253	773	210	261	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	253	-	210	261	-
Stage 1	-	-	-	-	-	-	600	574	-	520	534	-
Stage 2	-	-	-	-	-	-	413	518	-	528	572	-












Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.3			21			22.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	1078	-	-	1293	-	-	353
HCM Lane V/C Ratio	0.246	0.054	-	-	0.015	-	-	0.415
HCM Control Delay (s)	21	8.5	0	-	7.8	0	-	22.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	2

# HCM 6th Signalized Intersection Capacity Analysis

## 2: N Main St & Franklin St

05/24/2021

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Traffic Volume (veh/h)	591	187	325	558	127	379			
Future Volume (veh/h)	591	187	325	558	127	379			
Number	3	18	2	12	1	6			
Initial Q, 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			
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1945	1945	1870	1870	1870	1870			
Adj Flow Rate, veh/h	657	208	361	620	141	421			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90			
Percent Heavy Veh, %	2	2	2	2	2	2			
Opposing Right Turn Influence	Yes				Yes				
Cap, veh/h	680	215	482	408	139	731			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.50	0.50	0.26	0.26	0.08	0.39			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	43.6	0.0	38.5	275.8	122.7	24.8			
Ln Grp LOS	D	A	D	F	F	C			
Approach Vol, veh/h	866		981			562			
Approach Delay, s/veh	43.6		188.5			49.4			
Approach LOS	D		F			D			
Timer:		1	2	3	4	5	6	7	8
Assigned Phs		1	2	8			6		
Case No		2.0	7.0	12.0			4.0		
Phs Duration (G+Y+Rc), s		12.0	28.2	49.8			40.2		
Change Period (Y+Rc), s		5.0	5.0	5.0			5.0		
Max Green (Gmax), s		7.0	22.0	46.0			34.0		
Max Allow Headway (MAH), s		3.9	4.6	3.9			5.4		
Max Q Clear (g_c+I1), s		9.0	25.2	43.9			17.9		
Green Ext Time (g_e), s		0.0	0.0	0.9			2.5		
Prob of Phs Call (p_c)		0.97	1.00	1.00			1.00		
Prob of Max Out (p_x)		1.00	0.00	1.00			0.00		
<b>Left-Turn Movement Data</b>									
Assigned Mvmt		1	5	3					
Mvmt Sat Flow, veh/h		1781	0	1365					
<b>Through Movement Data</b>									
Assigned Mvmt			2	8			6		
Mvmt Sat Flow, veh/h			1870	2			1870		
<b>Right-Turn Movement Data</b>									
Assigned Mvmt			12	18			16		
Mvmt Sat Flow, veh/h			1585	432			0		
<b>Left Lane Group Data</b>									
Assigned Mvmt		1	5	3	0	0	0	0	0
Lane Assignment		L (Prot)		L+T+R					

## HCM 6th Signalized Intersection Capacity Analysis 2: N Main St & Franklin St

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Lanes in Grp	1	0	1	0	0	0	0	0
Grp Vol (v), veh/h	141	0	866	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1799	0	0	0	0	0
Q Serve Time (g_s), s	7.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	7.0	0.0	41.9	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	139	0	896	0	0	0	0	0
V/C Ratio (X)	1.02	0.00	0.97	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	139	0	920	0	0	0	0	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	41.5	0.0	21.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	81.2	0.0	21.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	122.7	0.0	43.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	16.5	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	3.1	0.0	5.4	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	6.2	0.0	21.9	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.57	0.00	2.48	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	361	0	0	0	421	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	16.0	0.0	0.0	0.0	15.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.0	0.0	0.0	0.0	15.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	482	0	0	0	731	0	0
V/C Ratio (X)	0.00	0.75	0.00	0.00	0.00	0.58	0.00	0.00
Avail Cap (c_a), veh/h	0	482	0	0	0	731	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	30.7	0.0	0.0	0.0	21.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	7.8	0.0	0.0	0.0	3.3	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.5	0.0	0.0	0.0	24.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.1	0.0	0.0	0.0	6.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.0	0.0	0.7	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.2	0.0	0.0	0.0	7.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.59	0.00	0.00	0.00	0.50	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Right Lane Group Data

















Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment	R							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	620	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	23.2	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.24	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	408	0	0	0	0	0	0
V/C Ratio (X)	0.00	1.52	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	408	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	33.4	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	242.4	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	275.8	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	27.5	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	36.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.68	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	52.9	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

### Intersection Summary

HCM 6th Ctrl Delay	103.9
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Future Volume (veh/h)	11	649	20	52	669	8	20	16	36	4	43	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1945	1945	1945	1945	1945	1945
Adj Flow Rate, veh/h	12	721	22	58	743	9	22	18	40	4	48	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	49	1462	44	111	1341	16	75	33	57	48	124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.82	0.82	0.82	0.82	0.82	0.82	0.07	0.07	0.07	0.07	0.07	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	3.5	0.0	0.0	4.0	0.0	0.0	43.2	0.0	0.0	41.2	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	D	A	A	D	A	
Approach Vol, veh/h		755			810			80			52	
Approach Delay, s/veh		3.5			4.0			43.2			41.2	
Approach LOS		A			A			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			11.0		79.0		11.0		79.0			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			18.0		62.0		18.0		62.0			
Max Allow Headway (MAH), s			5.6		5.4		5.4		5.6			
Max Q Clear (g_c+I1), s			6.0		13.0		4.3		14.3			
Green Ext Time (g_e), s			0.3		7.3		0.1		8.7			
Prob of Phs Call (p_c)			0.96		1.00		0.96		1.00			
Prob of Max Out (p_x)			0.01		0.00		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			361		10		75		83			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			494		1780		1850		1632			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			855		54		0		19			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment			L+T+R		L+T+R		L+T		L+T+R			



# HCM 6th Signalized Intersection Capacity Analysis

## 4: Maxwell Ave & Franklin St

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Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	80	0	755	0	52	0	810
Grp Sat Flow (s), veh/h/ln	0	1710	0	1844	0	1925	0	1734
Q Serve Time (g_s), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	11.0	0.0	2.3	0.0	12.3
Perm LT Sat Flow (s_l), veh/h/ln	0	1379	0	722	0	1366	0	728
Shared LT Sat Flow (s_sh), veh/h/ln	0	1919	0	1869	0	1938	0	1864
Perm LT Eff Green (g_p), s	0.0	6.0	0.0	74.0	0.0	6.0	0.0	74.0
Perm LT Serve Time (g_u), s	0.0	3.7	0.0	61.7	0.0	2.0	0.0	63.0
Perm LT Q Serve Time (g_ps), s	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	47.4	0.0	2.9	0.0	23.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	11.0	0.0	2.3	0.0	12.3
Prop LT Inside Lane (P_L)	0.00	0.27	0.00	0.02	0.00	0.08	0.00	0.07
Lane Grp Cap (c), veh/h	0	166	0	1556	0	172	0	1468
V/C Ratio (X)	0.00	0.48	0.00	0.49	0.00	0.30	0.00	0.55
Avail Cap (c_a), veh/h	0	382	0	1556	0	423	0	1468
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.0	0.0	2.4	0.0	40.2	0.0	2.5
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.1	0.0	1.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	0.0	3.5	0.0	41.2	0.0	4.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	2.3	0.0	1.1	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	2.8	0.0	1.2	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.10	0.00	0.04	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

### Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.50	0.00	0.03	0.00	0.00	0.00	0.01
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

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

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021



Movement	EBL	EBR	NBL	NBT	SBT	SBR				
Lane Configurations										
Traffic Volume (veh/h)	196	80	132	178	681	259				
Future Volume (veh/h)	196	80	132	178	681	259				
Number	7	14	5	2	6	16				
Initial Q, 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					
Lanes Open During Work Zone										
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				
Adj Flow Rate, veh/h	218	89	147	198	757	288				
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90				
Percent Heavy Veh, %	2	2	2	2	2	2				
Opposing Right Turn Influence	Yes		Yes							
Cap, veh/h	241	98	216	1292	751	286				
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				
Prop Arrive On Green	0.20	0.20	0.08	0.69	0.58	0.58				
Unsig. Movement Delay										
Ln Grp Delay, s/veh	61.4	0.0	31.4	5.0	0.0	48.8				
Ln Grp LOS	E	A	C	A	A	F				
Approach Vol, veh/h	308			345	1045					
Approach Delay, s/veh	61.4			16.3	48.8					
Approach LOS	E			B	D					
Timer:		1	2	3	4	5	6	7	8	
Assigned Phs			2		4	5	6			
Case No			4.0		12.0	1.2	8.0			
Phs Duration (G+Y+Rc), s			67.0		22.7	9.8	57.2			
Change Period (Y+Rc), s			5.0		5.0	3.0	5.0			
Max Green (Gmax), s			62.0		18.0	7.0	52.0			
Max Allow Headway (MAH), s			5.4		3.9	3.9	5.5			
Max Q Clear (g_c+I1), s			5.3		17.7	5.1	54.2			
Green Ext Time (g_e), s			1.3		0.0	0.1	0.0			
Prob of Phs Call (p_c)			1.00		1.00	0.97	1.00			
Prob of Max Out (p_x)			0.00		1.00	1.00	0.00			
<b>Left-Turn Movement Data</b>										
Assigned Mvmt					7	5	1			
Mvmt Sat Flow, veh/h					1217	1781	0			
<b>Through Movement Data</b>										
Assigned Mvmt			2		4		6			
Mvmt Sat Flow, veh/h			1870		6		1291			
<b>Right-Turn Movement Data</b>										
Assigned Mvmt			12		14		16			
Mvmt Sat Flow, veh/h			0		497		491			
<b>Left Lane Group Data</b>										
Assigned Mvmt	0	0	0	7	5	1	0	0		
Lane Assignment				L+T+RL (Pr/Pm)						

# HCM 6th Signalized Intersection Capacity Analysis

## 5: Main St/N Main St & Stockton St

05/24/2021

Lanes in Grp	0	0	0	1	1	0	0	0
Grp Vol (v), veh/h	0	0	0	308	147	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1720	1781	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	15.7	3.1	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.7	3.1	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	540	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	54.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.71	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	340	216	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.91	0.68	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	345	219	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.2	23.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	26.2	8.2	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	61.4	31.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.5	1.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.5	0.5	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.0	2.3	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.58	0.23	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment	T							
Lanes in Grp	0	1	0	0	0	0	0	0
Grp Vol (v), veh/h	0	198	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1292	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1292	0	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis  
 5: Main St/N Main St & Stockton St

05/24/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment	T+R							
Lanes in Grp	0	0	0	0	0	1	0	0
Grp Vol (v), veh/h	0	0	0	0	0	1045	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	1782	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	52.2	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.29	0.00	0.28	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	1036	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	1036	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	18.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	30.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	48.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	27.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	2.01	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	44.5
HCM 6th LOS	D

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	35	60	85	419	427	35
Future Vol, veh/h	35	60	85	419	427	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	67	94	466	474	39

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1148	494	513	0	-	0
Stage 1	494	-	-	-	-	-
Stage 2	654	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	575	1052	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	193	575	1052	-	-	-
Mov Cap-2 Maneuver	193	-	-	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	517	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	333	-	-
HCM Lane V/C Ratio	0.09	-	0.317	-	-
HCM Control Delay (s)	8.8	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Intersection						
Int Delay, s/veh	4.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	109	11	57	75	20	23
Future Vol, veh/h	109	11	57	75	20	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	12	63	83	22	26

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	175	105	0	0	146
Stage 1	105	-	-	-	-
Stage 2	70	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	815	949	-	-	1436
Stage 1	919	-	-	-	-
Stage 2	953	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	802	949	-	-	1436
Mov Cap-2 Maneuver	802	-	-	-	-
Stage 1	919	-	-	-	-
Stage 2	938	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1436
HCM Lane V/C Ratio	-	-	0.164	0.015
HCM Control Delay (s)	-	-	10.3	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
Future Vol, veh/h	52	235	8	18	385	51	14	29	23	31	27	74
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	261	9	20	428	57	16	32	26	34	30	82
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.3	19.2	10.2	10.8
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	18%	4%	23%
Vol Thru, %	44%	80%	85%	20%
Vol Right, %	35%	3%	11%	56%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	295	454	132
LT Vol	14	52	18	31
Through Vol	29	235	385	27
RT Vol	23	8	51	74
Lane Flow Rate	73	328	504	147
Geometry Grp	1	1	1	1
Degree of Util (X)	0.126	0.485	0.705	0.24
Departure Headway (Hd)	6.196	5.327	5.029	5.888
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	576	675	716	607
Service Time	4.264	3.37	3.066	3.947
HCM Lane V/C Ratio	0.127	0.486	0.704	0.242
HCM Control Delay	10.2	13.3	19.2	10.8
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	0.4	2.7	5.9	0.9



