

# HCM 7th Signalized Intersection Summary 16: NC Hwy 96 E & NC 96 Bypass

06/14/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↱	↱	↰
Traffic Volume (veh/h)	85	557	281	79	143	85
Future Volume (veh/h)	85	557	281	79	143	85
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	94	619	312	88	159	94
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	713	634	599	914	503	427
Arrive On Green	0.40	0.40	0.16	0.49	0.27	0.27
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	94	619	312	88	159	94
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	3.0	34.6	10.4	2.3	6.1	4.1
Cycle Q Clear(g_c), s	3.0	34.6	10.4	2.3	6.1	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	713	634	599	914	503	427
V/C Ratio(X)	0.13	0.98	0.52	0.10	0.32	0.22
Avail Cap(c_a), veh/h	713	634	683	914	503	427
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.1	26.6	16.7	12.3	26.3	25.6
Incr Delay (d2), s/veh	0.1	29.7	0.7	0.2	1.6	1.2
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	30.0	3.7	0.9	2.8	4.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.2	56.3	17.4	12.5	27.9	26.7
LnGrp LOS	B	E	B	B	C	C
Approach Vol, veh/h	713			400	253	
Approach Delay, s/veh	51.2			16.3	27.5	
Approach LOS	D			B	C	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	49.0		41.0		19.8	29.2
Change Period (Y+Rc), s	7.0		7.0		7.0	7.0
Max Green Setting (Gmax), s	42.0		34.0		17.0	18.0
Max Q Clear Time (g_c+I1), s	4.3		36.6		12.4	8.1
Green Ext Time (p_c), s	0.4		0.0		0.4	0.7
Intersection Summary						
HCM 7th Control Delay, s/veh			36.6			
HCM 7th LOS			D			