

ANEXO 16

MEMÓRIA DE CÁLCULO DA SIMULAÇÃO DO CENÁRIO 01

Intersection

Intersection Delay (sec/veh): 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	242	4	7	476	5	17
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
Right Turn Channelized	None	None	None	None	None	None
Storage Length		0.0	0.0		0.0	0.0
Median Width	0.0			0.0	3.6	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	263	4	8	517	5	18
Number of Lanes	1	0	0	1	1	0

Major/Minor	Major 1		Major 2			
Conflicting Flow Rate - All	0	0	267	0	798	265
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	533	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1297	-	355	774
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	588	-
Time blocked-Platoon(%)	-	-	0	-	0	0
Mov Capacity-1 Maneuver	-	-	1297	-	352	774
Mov Capacity-2 Maneuver	-	-	-	-	352	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	583	-













Approach	EB	WB	NB
HCM Control Delay (s)	0	0.1	11.2
HCM LOS	A	A	B

Lane	NBLn1	EBT	EBR	WBL	WBT
Capacity (vph)	608				
HCM Control Delay (s)	11.2	-	-	7.792	-
HCM Lane VC Ratio	0.039	-	-	0.006	-
HCM Lane LOS	B	-	-	A	-
HCM 95th Percentile Queue (veh)	0.123	-	-	0.018	-

HCM 2010 Signalized Intersection Summary

200: Av. Meaípe & R. La Paloma

08/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Volume (vph)	43	2	22	7	0	2	24	257	10	15	337	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Queue, 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
Adj Sat Flow Rate	1863	1863	1863	1863	0	1863	1863	1863	1863	1863	1863	1863
Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Capacity, veh/h	593	54	244	160	0	0	151	1223	46	114	1231	121
Arriving On Green	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1190.9	28.5	609.3	0.0	0.0	0.0	264.5	2866.0	116.0	132.8	2983.9	302.0
Grp Volume(v), veh/h	72.8	0.0	0.0	9.8	0.0	0.0	159.4	0.0	156.9	218.6	0.0	200.9
Grp Sat Flow(s),veh/h/ln	1855.6	0.0	0.0	0.0	0.0	0.0	1615.8	0.0	1674.6	1780.6	0.0	1641.8
Q Serve(g_s), s	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	3.3
Cycle Q Clear(g_c), s	1.0	0.0	0.0	16.0	0.0	0.0	2.2	0.0	2.5	3.2	0.0	3.3
Proportion In Lane	0.642		0.328	0.778		0.222	0.164		0.069	0.075		0.184
Lane Grp Cap(c), veh/h	890.0	0.0	0.0	160.0	0.0	0.0	751.1	0.0	669.9	808.9	0.0	656.7
V/C Ratio(X)	0.082	0.000	0.000	0.061	0.000	0.000	0.212	0.000	0.234	0.270	0.000	0.306
Avail Cap(c_a), veh/h	890.0	0.0	0.0	160.0	0.0	0.0	751.1	0.0	669.9	808.9	0.0	656.7
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)	1.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	1.000	1.000	0.000	1.000
Uniform Delay (d), s/veh	7.5	0.0	0.0	15.2	0.0	0.0	7.9	0.0	7.9	8.2	0.0	8.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.7	0.0	0.0	0.6	0.0	0.8	0.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Group Delay (d), s/veh	7.7	0.0	0.0	15.9	0.0	0.0	8.5	0.0	8.8	9.0	0.0	9.4
Lane Group LOS	A			B			A		A	A		A
Approach Volume, veh/h		73			10			316			420	
Approach Delay, s/veh		7.7			15.9			8.6			9.2	
Approach LOS		A			B			A			A	
Timer												
Assigned Phase		4			8			2			6	
Phase Duration (G+Y+Rc), s		20.00			20.00			20.00			20.00	
Change Period (Y+Rc), s		4.00			4.00			4.00			4.00	
Max Green Setting (Gmax), s		16.00			16.00			16.00			16.00	
Max Q Clear Time (g_c+l1), s		3.04			18.00			4.48			5.35	
Green Extension Time (p_c)		0.60			0.00			7.43			6.97	
Intersection Summary												
HCM 2010 Control Delay				8.9								
HCM 2010 Level of Service				A								

Intersection

Intersection Delay (sec/veh): 4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	47	0	53	3	0	7
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
Right Turn Channelized	None	None	None	None	None	None
Storage Length		0.0	0.0		0.0	0.0
Median Width	0.0			0.0	3.6	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	51	0	58	3	0	8
Number of Lanes	1	0	0	1	1	0

Major/Minor	Major 1		Major 2			
Conflicting Flow Rate - All	0	-	51	0	170	51
Stage 1	-	-	-	-	51	-
Stage 2	-	-	-	-	119	-
Follow-up Headway	-	0	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	0	1555	-	820	1017
Stage 1	-	0	-	-	971	-
Stage 2	-	0	-	-	906	-
Time blocked-Platoon(%)	-	0	0	-	0	0
Mov Capacity-1 Maneuver	-	-	1555	-	790	1017
Mov Capacity-2 Maneuver	-	-	-	-	790	-
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	872	-


















Approach	EB	WB	NB
HCM Control Delay (s)	0	7	8.6
HCM LOS	A	A	A

Lane	NBLn1	EBT	WBL	WBT
Capacity (vph)	1017			
HCM Control Delay (s)	8.6	-	7.404	-
HCM Lane VC Ratio	0.007	-	0.037	-
HCM Lane LOS	A	-	A	-
HCM 95th Percentile Queue (veh)	0.023	-	0.115	-

HCM 2010 Signalized Intersection Summary

400: Av. Meaípe & Alam. Las Palmas

08/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	4	3	1	18	267	22	29	398	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Queue, 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	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow Rate	0	0	0	1863	1863	1863	1863	1863	1863	1863	1863	0
Lanes	0	0	0	0	1	0	1	1	0	1	1	0
Capacity, veh/h	0	0	0	90	53	8	118	764	63	148	869	0
Arriving On Green	0.00	0.00	0.00	0.27	0.27	0.27	0.07	0.45	0.45	0.08	0.47	0.00
Sat Flow, veh/h		0		113.5	408.6	28.4	1774.0	1698.1	139.9	1774.0	1862.7	0.0
Grp Volume(v), veh/h		0.0		8.7	0.0	0.0	19.6	0.0	314.1	31.5	432.6	0.0
Grp Sat Flow(s),veh/h/ln				226.9	0.0	0.0	1774.0	0.0	1838.1	1774.0	1862.7	0.0
Q Serve(g_s), s				0.0	0.0	0.0	0.6	0.0	6.8	1.0	9.7	0.0
Cycle Q Clear(g_c), s				16.0	0.0	0.0	0.6	0.0	6.8	1.0	9.7	0.0
Proportion In Lane				0.500		0.125	1.000		0.076	1.000		0.000
Lane Grp Cap(c), veh/h				150.5	0.0	0.0	118.3	0.0	827.1	147.8	869.3	0.0
V/C Ratio(X)				0.058	0.000	0.000	0.165	0.000	0.380	0.213	0.498	0.000
Avail Cap(c_a), veh/h				150.5	0.0	0.0	118.3	0.0	827.1	147.8	869.3	0.0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.000	0.000	0.000	1.000	0.000	1.000	1.000	1.000	0.000
Uniform Delay (d), s/veh				16.2	0.0	0.0	26.4	0.0	10.9	25.7	11.1	0.0
Incr Delay (d2), s/veh				0.7	0.0	0.0	3.0	0.0	1.3	3.3	2.0	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
Lane Group Delay (d), s/veh				16.9	0.0	0.0	29.4	0.0	12.3	28.9	13.1	0.0
Lane Group LOS				B			C		B	C	B	
Approach Volume, veh/h					9			334			464	
Approach Delay, s/veh					16.9			13.3			14.2	
Approach LOS					B			B			B	
Timer												
Assigned Phase					8		5	2		1	6	
Phase Duration (G+Y+Rc), s					20.00		8.00	31.00		9.00	32.00	
Change Period (Y+Rc), s					4.00		4.00	4.00		4.00	4.00	
Max Green Setting (Gmax), s					16.00		4.00	27.00		5.00	28.00	
Max Q Clear Time (g_c+l1), s					18.00		2.62	8.80		2.99	11.68	
Green Extension Time (p_c)					0.00		0.01	11.05		0.02	10.18	
Intersection Summary												
HCM 2010 Control Delay					13.9							
HCM 2010 Level of Service					B							

Intersection

Intersection Delay (sec/veh): 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	18	2	5	2	0	3	6	283	1	0	377	17
Conflicting Peds.(#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None	None	None	None	None	None	None
Storage Length	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0
Median Width		0.0			0.0			0.0			0.0	
Grade (%)		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2	2	2	2	2	2	2
Movement Flow Rate	20	2	5	2	0	3	7	308	1	0	410	18
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Minor 2			Minor 1			Major 1			Major 2		
Conflicting Flow Rate - All	743	742	419	746	751	309	428	0	0	309	0	0
Stage 1	419	419	-	323	323	-	-	-	-	-	-	-
Stage 2	324	323	-	423	428	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	331	344	634	330	340	731	1131	-	-	1252	-	-
Stage 1	612	590	-	689	651	-	-	-	-	-	-	-
Stage 2	688	650	-	609	585	-	-	-	-	-	-	-
Time blocked-Platoon(%)	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	328	342	634	324	338	731	1131	-	-	1252	-	-
Mov Capacity-2 Maneuver	328	342	-	324	338	-	-	-	-	-	-	-
Stage 1	608	590	-	684	646	-	-	-	-	-	-	-
Stage 2	680	645	-	602	585	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay (s)	15.7	12.5	0.2	0
HCM LOS	C	B	A	A

Lane	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (vph)				364	487			
HCM Control Delay (s)	8.201	0	-	15.7	12.5	0	-	-
HCM Lane VC Ratio	0.006	-	-	0.075	0.011	-	-	-
HCM Lane LOS	A	A	-	C	B	A	-	-
HCM 95th Percentile Queue (veh)	0.017	-	-	0.241	0.034	0	-	-

Intersection

Intersection Delay (sec/veh): 1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	447	14	19	327	16	34
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
Right Turn Channelized	None	None	None	None	None	None
Storage Length		0.0	0.0		0.0	0.0
Median Width	0.0			0.0	3.6	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	486	15	21	355	17	37
Number of Lanes	1	0	0	1	1	0













Major/Minor	Major 1		Major 2			
Conflicting Flow Rate - All	0	0	501	0	891	494
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	397	-
Follow-up Headway	-	-	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	-	1063	-	313	575
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	679	-
Time blocked-Platoon(%)	-	-	0	-	0	0
Mov Capacity-1 Maneuver	-	-	1063	-	305	575
Mov Capacity-2 Maneuver	-	-	-	-	305	-
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	662	-

Approach	EB	WB	NB
HCM Control Delay (s)	0	0.5	14.1
HCM LOS	A	A	B

Lane	NBLn1	EBT	EBR	WBL	WBT
Capacity (vph)	448				
HCM Control Delay (s)	14.1	-	-	8.454	-
HCM Lane VC Ratio	0.121	-	-	0.019	-
HCM Lane LOS	B	-	-	A	-
HCM 95th Percentile Queue (veh)	0.411	-	-	0.059	-

HCM 2010 Signalized Intersection Summary
200: Av. Meaípe & R. La Paloma

08/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (vph)	59	4	29	15	0	35	39	422	14	21	268	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Queue, 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
Adj Sat Flow Rate	1863	1863	1863	1863	0	1863	1863	1863	1863	1863	1863	1863
Lanes	0	1	0	0	1	0	0	2	0	0	2	0
Capacity, veh/h	592	64	234	117	0	0	154	1231	39	131	1124	169
Arriving On Green	0.40	0.40	0.40	0.40	0.00	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1190.2	40.7	585.0	0.0	0.0	0.0	267.5	2907.0	98.3	208.1	2584.9	423.3
Grp Volume(v), veh/h	100.0	0.0	0.0	54.3	0.0	0.0	256.6	0.0	259.7	185.0	0.0	174.7
Grp Sat Flow(s),veh/h/ln	1855.9	0.0	0.0	0.0	0.0	0.0	1619.1	0.0	1677.7	1687.1	0.0	1620.4
Q Serve(g_s), s	0.0	0.0	0.0	11.6	0.0	0.0	0.0	0.0	4.4	0.0	0.0	2.9
Cycle Q Clear(g_c), s	1.4	0.0	0.0	16.0	0.0	0.0	3.8	0.0	4.4	2.6	0.0	2.9
Proportion In Lane	0.641		0.315	0.300		0.700	0.165		0.059	0.123		0.261
Lane Grp Cap(c), veh/h	890.1	0.0	0.0	117.0	0.0	0.0	752.5	0.0	671.1	775.9	0.0	648.2
V/C Ratio(X)	0.112	0.000	0.000	0.465	0.000	0.000	0.341	0.000	0.387	0.238	0.000	0.270
Avail Cap(c_a), veh/h	890.1	0.0	0.0	117.0	0.0	0.0	752.5	0.0	671.1	775.9	0.0	648.2
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)	1.000	0.000	0.000	1.000	0.000	0.000	1.000	0.000	1.000	1.000	0.000	1.000
Uniform Delay (d), s/veh	7.6	0.0	0.0	15.9	0.0	0.0	8.4	0.0	8.5	8.0	0.0	8.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	12.7	0.0	0.0	1.2	0.0	1.7	0.7	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	0.0	0.0	0.0	0.0
Lane Group Delay (d), s/veh	7.9	0.0	0.0	28.6	0.0	0.0	9.6	0.0	10.2	8.7	0.0	9.1
Lane Group LOS	A			C			A		B	A		A
Approach Volume, veh/h		100			54			516			360	
Approach Delay, s/veh		7.9			28.6			9.9			8.9	
Approach LOS		A			C			A			A	
Timer												
Assigned Phase		4			8			2			6	
Phase Duration (G+Y+Rc), s		20.00			20.00			20.00			20.00	
Change Period (Y+Rc), s		4.00			4.00			4.00			4.00	
Max Green Setting (Gmax), s		16.00			16.00			16.00			16.00	
Max Q Clear Time (g_c+l1), s		3.42			18.00			6.39			4.90	
Green Extension Time (p_c)		0.82			0.00			7.18			8.14	
Intersection Summary												
HCM 2010 Control Delay				10.3								
HCM 2010 Level of Service				B								

Intersection

Intersection Delay (sec/veh): 3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	66	0	66	9	0	12
Conflicting Peds.(#/hr)	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
Right Turn Channelized	None	None	None	None	None	None
Storage Length		0.0	0.0		0.0	0.0
Median Width	0.0			0.0	3.6	
Grade (%)	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2
Movement Flow Rate	72	0	72	10	0	13
Number of Lanes	1	0	0	1	1	0

Major/Minor	Major 1		Major 2			
Conflicting Flow Rate - All	0	-	72	0	226	72
Stage 1	-	-	-	-	72	-
Stage 2	-	-	-	-	154	-
Follow-up Headway	-	0	2.218	-	3.518	3.318
Pot Capacity-1 Maneuver	-	0	1528	-	762	990
Stage 1	-	0	-	-	951	-
Stage 2	-	0	-	-	874	-
Time blocked-Platoon(%)	-	0	0	-	0	0
Mov Capacity-1 Maneuver	-	-	1528	-	726	990
Mov Capacity-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	951	-
Stage 2	-	-	-	-	833	-


















Approach	EB	WB	NB
HCM Control Delay (s)	0	6.6	8.7
HCM LOS	A	A	A

Lane	NBLn1	EBT	WBL	WBT
Capacity (vph)	990			
HCM Control Delay (s)	8.7	-	7.472	-
HCM Lane VC Ratio	0.013	-	0.047	-
HCM Lane LOS	A	-	A	-
HCM 95th Percentile Queue (veh)	0.04	-	0.148	-

HCM 2010 Signalized Intersection Summary

400: Av. Meaípe & Alam. Las Palmas

08/08/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	11	5	4	34	490	6	13	288	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Queue, 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	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow Rate	0	0	0	1863	1863	1863	1863	1863	1863	1863	1863	0
Lanes	0	0	0	0	1	0	1	1	0	1	1	0
Capacity, veh/h	0	0	0	93	39	10	118	826	10	148	869	0
Arriving On Green	0.00	0.00	0.00	0.27	0.27	0.27	0.07	0.45	0.45	0.08	0.47	0.00
Sat Flow, veh/h		0		101.0	259.9	36.7	1774.0	1836.3	22.5	1774.0	1862.7	0.0
Grp Volume(v), veh/h		0.0		21.7	0.0	0.0	37.0	0.0	539.1	14.1	313.0	0.0
Grp Sat Flow(s),veh/h/ln				183.7	0.0	0.0	1774.0	0.0	1858.8	1774.0	1862.7	0.0
Q Serve(g_s), s				0.0	0.0	0.0	1.2	0.0	13.5	0.4	6.5	0.0
Cycle Q Clear(g_c), s				16.0	0.0	0.0	1.2	0.0	13.5	0.4	6.5	0.0
Proportion In Lane				0.550		0.200	1.000		0.012	1.000		0.000
Lane Grp Cap(c), veh/h				142.0	0.0	0.0	118.3	0.0	836.4	147.8	869.3	0.0
V/C Ratio(X)				0.153	0.000	0.000	0.312	0.000	0.645	0.096	0.360	0.000
Avail Cap(c_a), veh/h				142.0	0.0	0.0	118.3	0.0	836.4	147.8	869.3	0.0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.000	0.000	0.000	1.000	0.000	1.000	1.000	1.000	0.000
Uniform Delay (d), s/veh				16.3	0.0	0.0	26.7	0.0	12.8	25.4	10.3	0.0
Incr Delay (d2), s/veh				2.3	0.0	0.0	6.8	0.0	3.8	1.3	1.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Group Delay (d), s/veh				18.6	0.0	0.0	33.5	0.0	16.6	26.7	11.4	0.0
Lane Group LOS				B			C		B	C	B	
Approach Volume, veh/h					22			576			327	
Approach Delay, s/veh					18.6			17.7			12.1	
Approach LOS					B			B			B	
Timer												
Assigned Phase					8		5	2		1		6
Phase Duration (G+Y+Rc), s					20.00		8.00	31.00		9.00		32.00
Change Period (Y+Rc), s					4.00		4.00	4.00		4.00		4.00
Max Green Setting (Gmax), s					16.00		4.00	27.00		5.00		28.00
Max Q Clear Time (g_c+l1), s					18.00		3.19	15.48		2.44		8.46
Green Extension Time (p_c)					0.00		0.01	8.49		0.01		13.08
Intersection Summary												
HCM 2010 Control Delay					15.7							
HCM 2010 Level of Service					B							

Intersection

Intersection Delay (sec/veh): 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	32	1	10	4	0	1	9	502	2	0	309	21
Conflicting Peds.(#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
Right Turn Channelized	None	None	None	None	None	None	None	None	None	None	None	None
Storage Length	0.0		0.0	0.0		0.0	0.0		0.0	0.0		0.0
Median Width		0.0			0.0			0.0			0.0	
Grade (%)		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles(%)	2	2	2	2	2	2	2	2	2	2	2	2
Movement Flow Rate	35	1	11	4	0	1	10	546	2	0	336	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Major/Minor	Minor 2		Minor 1			Major 1			Major 2			
Conflicting Flow Rate - All	916	916	348	921	926	547	359	0	0	548	0	0
Stage 1	348	348	-	567	567	-	-	-	-	-	-	-
Stage 2	568	568	-	354	359	-	-	-	-	-	-	-
Follow-up Headway	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Capacity-1 Maneuver	253	272	695	251	269	537	1200	-	-	1021	-	-
Stage 1	668	634	-	508	507	-	-	-	-	-	-	-
Stage 2	508	506	-	663	627	-	-	-	-	-	-	-
Time blocked-Platoon(%)	0	0	0	0	0	0	0	-	-	0	-	-
Mov Capacity-1 Maneuver	250	269	695	244	266	537	1200	-	-	1021	-	-
Mov Capacity-2 Maneuver	250	269	-	244	266	-	-	-	-	-	-	-
Stage 1	660	634	-	502	501	-	-	-	-	-	-	-
Stage 2	501	500	-	652	627	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay (s)	19.5	18.4	0.1	0
HCM LOS	C	C	A	A

Lane	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (vph)				294	274			
HCM Control Delay (s)	8.025	0	-	19.5	18.4	0	-	-
HCM Lane VC Ratio	0.008	-	-	0.159	0.02	-	-	-
HCM Lane LOS	A	A	-	C	C	A	-	-
HCM 95th Percentile Queue (veh)	0.025	-	-	0.557	0.061	0	-	-