Greendale Avenue at Brookline Street

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	165	25	17	1120	270	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982				0.979	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1713	0	0	2003	1968	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1713	0	0	2003	1968	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.71	0.71	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	6%	1%	1%	0%
Adj. Flow (vph)	232	35	19	1231	297	56
Shared Lane Traffic (%)						
Lane Group Flow (vph)	267	0	0	1250	353	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 89.9% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	84.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	165	25	17	1120	270	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	71	71	91	91	91	91
Heavy Vehicles, %	1	0	6	1	1	0
Mvmt Flow	232	35	19	1231	297	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1593	325	353	0	-	0
Stage 1	325	-	-	-	-	-
Stage 2	1268	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.254	-	-	-
Pot Capacity-1 Maneuver	# 118	721	1184	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 112	721	1184	-	-	-
Mov Capacity-2 Maneuver	# 112	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	252	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 588.5	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1184	-	126	-	-
HCM Lane V/C Ratio	0.016	-	2.124	-	-
HCM Control Delay (s)	8.089	0	$ 588.5	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.048	-	22.218	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	67	26	24	243	1060	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.962				0.985	
Flt Protected	0.965			0.996		
Satd. Flow (prot)	1693	0	0	2000	1979	0
Flt Permitted	0.965			0.996		
Satd. Flow (perm)	1693	0	0	2000	1979	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.86	0.86	0.83	0.83	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%
Adj. Flow (vph)	78	30	29	293	1165	149
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	322	1314	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 76.0% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	6.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	67	26	24	243	1060	136
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	86	86	83	83	91	91
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	78	30	29	293	1165	149

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1591	1240	1314	0	-	0
Stage 1	1240	-	-	-	-	-
Stage 2	351	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	119	216	533	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	111	216	533	-	-	-
Mov Capacity-2 Maneuver	111	-	-	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	669	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	107.4	1.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	128	-	-
HCM Lane V/C Ratio	0.054	-	0.845	-	-
HCM Control Delay (s)	12.141	0	107.4	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.172	-	5.247	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	173	26	18	1242	298	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982				0.979	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1713	0	0	2003	1967	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1713	0	0	2003	1967	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.71	0.71	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	6%	1%	1%	0%
Adj. Flow (vph)	244	37	20	1365	327	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	0	1385	386	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	129.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	173	26	18	1242	298	54
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	71	71	91	91	91	91
Heavy Vehicles, %	1	0	6	1	1	0
Mvmt Flow	244	37	20	1365	327	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1761	357	387	0	-	0
Stage 1	357	-	-	-	-	-
Stage 2	1404	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.254	-	-	-
Pot Capacity-1 Maneuver	# 93	692	1150	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	# 228	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 86	692	1150	-	-	-
Mov Capacity-2 Maneuver	# 86	-	-	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	# 212	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 945.8	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1150	-	97	-	-
HCM Lane V/C Ratio	0.017	-	2.89	-	-
HCM Control Delay (s)	8.185	0	$ 945.8	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.052	-	26.828	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	70	27	25	277	1176	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963				0.985	
Flt Protected	0.965			0.996		
Satd. Flow (prot)	1695	0	0	2000	1979	0
Flt Permitted	0.965			0.996		
Satd. Flow (perm)	1695	0	0	2000	1979	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.86	0.86	0.83	0.83	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%
Adj. Flow (vph)	81	31	30	334	1292	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	0	364	1449	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 82.8% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	12.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	70	27	25	277	1176	143
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	86	86	83	83	91	91
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	81	31	30	334	1292	157

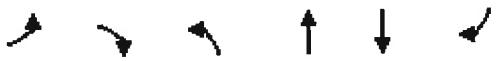
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1765	1371	1449	0	-	0
Stage 1	1371	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	93	181	474	-	-	-
Stage 1	237	-	-	-	-	-
Stage 2	683	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	86	181	474	-	-	-
Mov Capacity-2 Maneuver	86	-	-	-	-	-
Stage 1	237	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	203.3	1.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	474	-	101	-	-
HCM Lane V/C Ratio	0.064	-	1.117	-	-
HCM Control Delay (s)	13.11	0	203.3	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.203	-	7.282	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	173	26	18	1328	320	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982				0.981	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1713	0	0	2003	1971	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1713	0	0	2003	1971	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.71	0.71	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	6%	1%	1%	0%
Adj. Flow (vph)	244	37	20	1459	352	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	0	1479	411	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 102.1% ICU Level of Service G
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	154.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	173	26	18	1328	320	54
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	71	71	91	91	91	91
Heavy Vehicles, %	1	0	6	1	1	0
Mvmt Flow	244	37	20	1459	352	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1880	381	411	0	-	0
Stage 1	381	-	-	-	-	-
Stage 2	1499	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.254	-	-	-
Pot Capacity-1 Maneuver	# 79	671	1127	-	-	-
Stage 1	693	-	-	-	-	-
Stage 2	# 205	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 72	671	1127	-	-	-
Mov Capacity-2 Maneuver	# 72	-	-	-	-	-
Stage 1	693	-	-	-	-	-
Stage 2	# 186	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 1195.9	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1127	-	82	-	-
HCM Lane V/C Ratio	0.018	-	3.418	-	-
HCM Control Delay (s)	8.251	0	$ 1195.9	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.054	-	28.476	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	70	27	25	323	1262	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963				0.986	
Flt Protected	0.965			0.996		
Satd. Flow (prot)	1695	0	0	2000	1981	0
Flt Permitted	0.965			0.996		
Satd. Flow (perm)	1695	0	0	2000	1981	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.86	0.86	0.83	0.83	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%
Adj. Flow (vph)	81	31	30	389	1387	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	0	419	1544	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 87.3% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	17.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	70	27	25	323	1262	143
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	86	86	83	83	91	91
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	81	31	30	389	1387	157

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1914	1465	1544	0	-	0
Stage 1	1465	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	# 75	159	436	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 68	159	436	-	-	-
Mov Capacity-2 Maneuver	# 68	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	588	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 326.6	1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	436	-	81	-	-
HCM Lane V/C Ratio	0.069	-	1.392	-	-
HCM Control Delay (s)	13.869	0	$ 326.6	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.222	-	8.787	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	173	26	18	1186	214	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982				0.973	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1713	0	0	2003	1956	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1713	0	0	2003	1956	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.71	0.71	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	6%	1%	1%	0%
Adj. Flow (vph)	244	37	20	1303	235	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	0	1323	294	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 94.6% ICU Level of Service F
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	97.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	173	26	18	1186	214	54
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	71	71	91	91	91	91
Heavy Vehicles, %	1	0	6	1	1	0
Mvmt Flow	244	37	20	1303	235	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1608	265	295	0	-	0
Stage 1	265	-	-	-	-	-
Stage 2	1343	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.254	-	-	-
Pot Capacity-1 Maneuver	# 116	779	1244	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 109	779	1244	-	-	-
Mov Capacity-2 Maneuver	# 109	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	# 231	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 657.8	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1244	-	123	-	-
HCM Lane V/C Ratio	0.016	-	2.279	-	-
HCM Control Delay (s)	7.941	0	$ 657.8	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.048	-	24.034	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	70	27	25	221	926	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963				0.982	
Flt Protected	0.965			0.995		
Satd. Flow (prot)	1695	0	0	1999	1973	0
Flt Permitted	0.965			0.995		
Satd. Flow (perm)	1695	0	0	1999	1973	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.86	0.86	0.83	0.83	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%
Adj. Flow (vph)	81	31	30	266	1018	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	0	296	1175	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.6% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	70	27	25	221	926	143
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	86	86	83	83	91	91
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	81	31	30	266	1018	157

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1423	1096	1175	0	-	0
Stage 1	1096	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	151	262	602	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	733	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	142	262	602	-	-	-
Mov Capacity-2 Maneuver	142	-	-	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	690	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	65.9	1.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	602	-	163	-	-
HCM Lane V/C Ratio	0.05	-	0.692	-	-
HCM Control Delay (s)	11.295	0	65.9	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.158	-	4.083	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	173	26	18	1272	236	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.982				0.975	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1713	0	0	2003	1960	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1713	0	0	2003	1960	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.71	0.71	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	1%	0%	6%	1%	1%	0%
Adj. Flow (vph)	244	37	20	1398	259	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	281	0	0	1418	318	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 99.2% ICU Level of Service F
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	120.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	173	26	18	1272	236	54
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	71	71	91	91	91	91
Heavy Vehicles, %	1	0	6	1	1	0
Mvmt Flow	244	37	20	1398	259	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1726	289	319	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	1437	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.254	-	-	-
Pot Capacity-1 Maneuver	# 98	755	1219	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	# 220	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 91	755	1219	-	-	-
Mov Capacity-2 Maneuver	# 91	-	-	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	# 204	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 866.3	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1219	-	103	-	-
HCM Lane V/C Ratio	0.016	-	2.721	-	-
HCM Control Delay (s)	8.002	0	$ 866.3	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.049	-	26.176	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	70	27	25	267	1012	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963				0.983	
Flt Protected	0.965			0.996		
Satd. Flow (prot)	1695	0	0	2000	1975	0
Flt Permitted	0.965			0.996		
Satd. Flow (perm)	1695	0	0	2000	1975	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	584			415	1036	
Travel Time (s)	13.3			9.4	23.5	
Peak Hour Factor	0.86	0.86	0.83	0.83	0.91	0.91
Heavy Vehicles (%)	1%	0%	0%	1%	1%	0%
Adj. Flow (vph)	81	31	30	322	1112	157
Shared Lane Traffic (%)						
Lane Group Flow (vph)	112	0	0	352	1269	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 74.1% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	70	27	25	267	1012	143
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	86	86	83	83	91	91
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	81	31	30	322	1112	157

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1573	1191	1269	0	-	0
Stage 1	1191	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Follow-up Headway	3.509	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	122	231	554	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	114	231	554	-	-	-
Mov Capacity-2 Maneuver	114	-	-	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	646	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	105.1	1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	554	-	133	-	-
HCM Lane V/C Ratio	0.054	-	0.848	-	-
HCM Control Delay (s)	11.871	0	105.1	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.172	-	5.362	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Greendale Avenue at Rybury Hillway

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	3	28	17	1143	261	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.999	
Flt Protected	0.995			0.999		
Satd. Flow (prot)	1561	0	0	1998	2005	0
Flt Permitted	0.995			0.999		
Satd. Flow (perm)	1561	0	0	1998	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.52	0.52	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	7%	24%	1%	1%	0%
Adj. Flow (vph)	6	54	18	1229	281	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	0	1247	284	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 83.7% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	28	17	1143	261	3
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	52	52	93	93	93	93
Heavy Vehicles, %	0	7	24	1	1	0
Mvmt Flow	6	54	18	1229	281	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1548	282	284	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	1266	-	-	-	-	-
Follow-up Headway	3.5	3.363	2.416	-	-	-
Pot Capacity-1 Maneuver	127	745	1162	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	121	745	1162	-	-	-
Mov Capacity-2 Maneuver	121	-	-	-	-	-
Stage 1	770	-	-	-	-	-
Stage 2	255	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1162	-	497	-	-
HCM Lane V/C Ratio	0.016	-	0.12	-	-
HCM Control Delay (s)	8.148	0	13.2	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.048	-	0.406	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	1	15	18	263	1055	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872					
Flt Protected	0.997			0.997		
Satd. Flow (prot)	1652	0	0	2021	2007	0
Flt Permitted	0.997			0.997		
Satd. Flow (perm)	1652	0	0	2021	2007	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.44	0.44	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	2	34	24	346	1172	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	36	0	0	370	1175	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 65.7% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	15	18	263	1055	3
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	44	44	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	2	34	24	346	1172	3

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1567	1174	1176	0	-	0
Stage 1	1174	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	124	236	601	-	-	-
Stage 1	296	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	118	236	601	-	-	-
Mov Capacity-2 Maneuver	118	-	-	-	-	-
Stage 1	296	-	-	-	-	-
Stage 2	652	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.4	0.7	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	601	-	222	-	-
HCM Lane V/C Ratio	0.039	-	0.164	-	-
HCM Control Delay (s)	11.236	0	24.4	-	-
HCM Lane LOS	B	A	C		
HCM 95th %tile Q(veh)	0.123	-	0.573	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	3	29	18	1267	289	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.999	
Flt Protected	0.995			0.999		
Satd. Flow (prot)	1561	0	0	1998	2005	0
Flt Permitted	0.995			0.999		
Satd. Flow (perm)	1561	0	0	1998	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.52	0.52	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	7%	24%	1%	1%	0%
Adj. Flow (vph)	6	56	19	1362	311	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	1381	314	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	29	18	1267	289	3
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	52	52	93	93	93	93
Heavy Vehicles, %	0	7	24	1	1	0
Mvmt Flow	6	56	19	1362	311	3

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1713	312	314	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	1401	-	-	-	-	-
Follow-up Headway	3.5	3.363	2.416	-	-	-
Pot Capacity-1 Maneuver	101	717	1132	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	94	717	1132	-	-	-
Mov Capacity-2 Maneuver	94	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	214	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1132	-	442	-	-
HCM Lane V/C Ratio	0.017	-	0.139	-	-
HCM Control Delay (s)	8.236	0	14.5	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.052	-	0.48	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	1	16	19	298	1171	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872					
Flt Protected	0.997			0.997		
Satd. Flow (prot)	1652	0	0	2021	2007	0
Flt Permitted	0.997			0.997		
Satd. Flow (perm)	1652	0	0	2021	2007	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.44	0.44	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	2	36	25	392	1301	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	417	1304	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	19	298	1171	3
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	44	44	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	2	36	25	392	1301	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1745	1303	1304	0	-	0
Stage 1	1303	-	-	-	-	-
Stage 2	442	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	96	198	538	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	652	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	90	198	538	-	-	-
Mov Capacity-2 Maneuver	90	-	-	-	-	-
Stage 1	257	-	-	-	-	-
Stage 2	614	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.5	0.7	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	538	-	185	-	-
HCM Lane V/C Ratio	0.046	-	0.209	-	-
HCM Control Delay (s)	12.017	0	29.5	-	-
HCM Lane LOS	B	A	D		
HCM 95th %tile Q(veh)	0.146	-	0.76	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	3	29	18	1353	311	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.999	
Flt Protected	0.995			0.999		
Satd. Flow (prot)	1561	0	0	1999	2005	0
Flt Permitted	0.995			0.999		
Satd. Flow (perm)	1561	0	0	1999	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.52	0.52	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	7%	24%	1%	1%	0%
Adj. Flow (vph)	6	56	19	1455	334	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	1474	337	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 95.6%		ICU Level of Service F	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	29	18	1353	311	3
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	52	52	93	93	93	93
Heavy Vehicles, %	0	7	24	1	1	0
Mvmt Flow	6	56	19	1455	334	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1830	336	338	0	-	0
Stage 1	336	-	-	-	-	-
Stage 2	1494	-	-	-	-	-
Follow-up Headway	3.5	3.363	2.416	-	-	-
Pot Capacity-1 Maneuver	85	695	1108	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	77	695	1108	-	-	-
Mov Capacity-2 Maneuver	77	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	189	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.7	0.1	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1108	-	397	-	-
HCM Lane V/C Ratio	0.017	-	0.155	-	-
HCM Control Delay (s)	8.307	0	15.7	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.053	-	0.543	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	1	16	19	344	1257	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872					
Flt Protected	0.997			0.997		
Satd. Flow (prot)	1652	0	0	2021	2007	0
Flt Permitted	0.997			0.997		
Satd. Flow (perm)	1652	0	0	2021	2007	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.44	0.44	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	2	36	25	453	1397	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	478	1400	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 76.3% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	19	344	1257	3
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	44	44	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	2	36	25	453	1397	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1901	1398	1400	0	-	0
Stage 1	1398	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	77	174	494	-	-	-
Stage 1	231	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	72	174	494	-	-	-
Mov Capacity-2 Maneuver	72	-	-	-	-	-
Stage 1	231	-	-	-	-	-
Stage 2	570	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.3	0.7	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	494	-	161	-	-
HCM Lane V/C Ratio	0.051	-	0.24	-	-
HCM Control Delay (s)	12.676	0	34.3	-	-
HCM Lane LOS	B	A	D		
HCM 95th %tile Q(veh)	0.159	-	0.895	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	3	29	18	1211	205	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.998	
Flt Protected	0.995			0.999		
Satd. Flow (prot)	1561	0	0	1998	2003	0
Flt Permitted	0.995			0.999		
Satd. Flow (perm)	1561	0	0	1998	2003	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.52	0.52	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	7%	24%	1%	1%	0%
Adj. Flow (vph)	6	56	19	1302	220	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	1321	223	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	29	18	1211	205	3
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	52	52	93	93	93	93
Heavy Vehicles, %	0	7	24	1	1	0
Mvmt Flow	6	56	19	1302	220	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1563	222	224	0	-	0
Stage 1	222	-	-	-	-	-
Stage 2	1341	-	-	-	-	-
Follow-up Headway	3.5	3.363	2.416	-	-	-
Pot Capacity-1 Maneuver	124	805	1225	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	246	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	117	805	1225	-	-	-
Mov Capacity-2 Maneuver	117	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	232	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1225	-	519	-	-
HCM Lane V/C Ratio	0.016	-	0.119	-	-
HCM Control Delay (s)	7.986	0	12.9	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.048	-	0.401	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	1	16	19	242	921	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872					
Flt Protected	0.997			0.996		
Satd. Flow (prot)	1652	0	0	2019	2007	0
Flt Permitted	0.997			0.996		
Satd. Flow (perm)	1652	0	0	2019	2007	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.44	0.44	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	2	36	25	318	1023	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	343	1026	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 58.7% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	19	242	921	3
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	44	44	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	2	36	25	318	1023	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1393	1025	1027	0	-	0
Stage 1	1025	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	158	288	684	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	151	288	684	-	-	-
Mov Capacity-2 Maneuver	151	-	-	-	-	-
Stage 1	349	-	-	-	-	-
Stage 2	673	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	0.8	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	684	-	273	-	-
HCM Lane V/C Ratio	0.037	-	0.142	-	-
HCM Control Delay (s)	10.463	0	20.3	-	-
HCM Lane LOS	B	A	C		
HCM 95th %tile Q(veh)	0.114	-	0.486	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	3	29	18	1297	227	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878				0.998	
Flt Protected	0.995			0.999		
Satd. Flow (prot)	1561	0	0	1998	2003	0
Flt Permitted	0.995			0.999		
Satd. Flow (perm)	1561	0	0	1998	2003	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.52	0.52	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	7%	24%	1%	1%	0%
Adj. Flow (vph)	6	56	19	1395	244	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	1414	247	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 92.6% ICU Level of Service F
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	29	18	1297	227	3
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	52	52	93	93	93	93
Heavy Vehicles, %	0	7	24	1	1	0
Mvmt Flow	6	56	19	1395	244	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1679	246	247	0	-	0
Stage 1	246	-	-	-	-	-
Stage 2	1433	-	-	-	-	-
Follow-up Headway	3.5	3.363	2.416	-	-	-
Pot Capacity-1 Maneuver	105	781	1201	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	98	781	1201	-	-	-
Mov Capacity-2 Maneuver	98	-	-	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	206	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.8	0.1	0
HCM LOS	B		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1201	-	472	-	-
HCM Lane V/C Ratio	0.016	-	0.13	-	-
HCM Control Delay (s)	8.047	0	13.8	-	-
HCM Lane LOS	A	A	B		
HCM 95th %tile Q(veh)	0.049	-	0.446	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	1	16	19	288	1007	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872					
Flt Protected	0.997			0.997		
Satd. Flow (prot)	1652	0	0	2021	2007	0
Flt Permitted	0.997			0.997		
Satd. Flow (perm)	1652	0	0	2021	2007	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	226			86	415	
Travel Time (s)	5.1			2.0	9.4	
Peak Hour Factor	0.44	0.44	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	2	36	25	379	1119	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	38	0	0	404	1122	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 63.2% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	16	19	288	1007	3
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	44	44	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	2	36	25	379	1119	3

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1550	1121	1122	0	-	0
Stage 1	1121	-	-	-	-	-
Stage 2	429	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	127	253	630	-	-	-
Stage 1	314	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	121	253	630	-	-	-
Mov Capacity-2 Maneuver	121	-	-	-	-	-
Stage 1	314	-	-	-	-	-
Stage 2	628	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23	0.7	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	630	-	238	-	-
HCM Lane V/C Ratio	0.04	-	0.162	-	-
HCM Control Delay (s)	10.95	0	23	-	-
HCM Lane LOS	B	A	C		
HCM 95th %tile Q(veh)	0.124	-	0.568	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Greendale Avenue at Bird Street

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	90	12	11	1070	227	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984				0.971	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1791	0	0	1942	2066	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1791	0	0	1942	2066	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			518	86	
Travel Time (s)	10.7			11.8	2.0	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	2%
Adj. Flow (vph)	117	16	12	1151	244	67
Shared Lane Traffic (%)						
Lane Group Flow (vph)	133	0	0	1163	311	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 77.5% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	7.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	90	12	11	1070	227	62
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	77	77	93	93	93	93
Heavy Vehicles, %	0	0	0	1	1	2
Mvmt Flow	117	16	12	1151	244	67

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1451	277	311	0	-	0
Stage 1	277	-	-	-	-	-
Stage 2	1174	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	145	767	1261	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	141	767	1261	-	-	-
Mov Capacity-2 Maneuver	141	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	288	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	94	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1261	-	156	-	-
HCM Lane V/C Ratio	0.009	-	0.849	-	-
HCM Control Delay (s)	7.882	0	94	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.028	-	5.729	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	43	5	6	238	996	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986				0.991	
Flt Protected	0.957			0.999		
Satd. Flow (prot)	1793	0	0	1961	2114	0
Flt Permitted	0.957			0.999		
Satd. Flow (perm)	1793	0	0	1961	2114	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			518	86	
Travel Time (s)	10.7			11.8	2.0	
Peak Hour Factor	0.80	0.80	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	54	6	8	313	1107	82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	0	0	321	1189	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 66.9% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	43	5	6	238	996	74
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	80	80	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	54	6	8	313	1107	82

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1477	1148	1189	0	-	0
Stage 1	1148	-	-	-	-	-
Stage 2	329	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	140	244	594	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	138	244	594	-	-	-
Mov Capacity-2 Maneuver	138	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	722	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	46.3	0.3	0
HCM LOS	E		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	594	-	145	-	-
HCM Lane V/C Ratio	0.013	-	0.414	-	-
HCM Control Delay (s)	11.142	0	46.3	-	-
HCM Lane LOS	B	A	E		
HCM 95th %tile Q(veh)	0.04	-	1.809	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	95	13	12	1190	253	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984				0.972	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1791	0	0	1942	2068	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1791	0	0	1942	2068	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			518	86	
Travel Time (s)	10.7			11.8	2.0	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	2%
Adj. Flow (vph)	123	17	13	1280	272	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	0	1293	342	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 84.9% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	14.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	95	13	12	1190	253	65
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	77	77	93	93	93	93
Heavy Vehicles, %	0	0	0	1	1	2
Mvmt Flow	123	17	13	1280	272	70

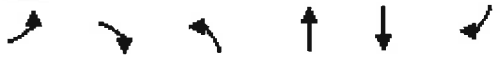
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1612	307	342	0	-	0
Stage 1	307	-	-	-	-	-
Stage 2	1305	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	# 116	738	1228	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 112	738	1228	-	-	-
Mov Capacity-2 Maneuver	# 112	-	-	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	247	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	184.9	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1228	-	125	-	-
HCM Lane V/C Ratio	0.011	-	1.122	-	-
HCM Control Delay (s)	7.963	0	184.9	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.032	-	8.269	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	5	6	272	1109	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.991	
Flt Protected	0.957			0.999		
Satd. Flow (prot)	1795	0	0	1961	2114	0
Flt Permitted	0.957			0.999		
Satd. Flow (perm)	1795	0	0	1961	2114	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			518	86	
Travel Time (s)	10.7			11.8	2.0	
Peak Hour Factor	0.80	0.80	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	56	6	8	358	1232	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	366	1319	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 73.1%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	45	5	6	272	1109	78
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	80	80	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	56	6	8	358	1232	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1650	1276	1319	0	-	0
Stage 1	1276	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	110	206	531	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	108	206	531	-	-	-
Mov Capacity-2 Maneuver	108	-	-	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	687	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	70.6	0.3	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	531	-	113	-	-
HCM Lane V/C Ratio	0.015	-	0.553	-	-
HCM Control Delay (s)	11.882	0	70.6	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.045	-	2.623	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	95	13	12	1276	275	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984				0.974	
Flt Protected	0.958					
Satd. Flow (prot)	1791	0	0	1944	2073	0
Flt Permitted	0.958					
Satd. Flow (perm)	1791	0	0	1944	2073	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			136	86	
Travel Time (s)	10.7			3.1	2.0	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	2%
Adj. Flow (vph)	123	17	13	1372	296	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	0	1385	366	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 89.4% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	20.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	95	13	12	1276	275	65
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	77	77	93	93	93	93
Heavy Vehicles, %	0	0	0	1	1	2
Mvmt Flow	123	17	13	1372	296	70

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1729	331	366	0	-	0
Stage 1	331	-	-	-	-	-
Stage 2	1398	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	# 98	715	1204	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 94	715	1204	-	-	-
Mov Capacity-2 Maneuver	# 94	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	221	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	277.1	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1204	-	105	-	-
HCM Lane V/C Ratio	0.011	-	1.336	-	-
HCM Control Delay (s)	8.022	0	277.1	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.032	-	9.784	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	5	6	318	1195	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.992	
Flt Protected	0.957			0.999		
Satd. Flow (prot)	1795	0	0	1961	2116	0
Flt Permitted	0.957			0.999		
Satd. Flow (perm)	1795	0	0	1961	2116	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			136	86	
Travel Time (s)	10.7			3.1	2.0	
Peak Hour Factor	0.80	0.80	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	56	6	8	418	1328	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	426	1415	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 77.6% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	45	5	6	318	1195	78
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	80	80	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	56	6	8	418	1328	87

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1805	1371	1414	0	-	0
Stage 1	1371	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	88	181	488	-	-	-
Stage 1	238	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	86	181	488	-	-	-
Mov Capacity-2 Maneuver	86	-	-	-	-	-
Stage 1	238	-	-	-	-	-
Stage 2	644	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	105.2	0.2	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	488	-	91	-	-
HCM Lane V/C Ratio	0.016	-	0.687	-	-
HCM Control Delay (s)	12.498	0	105.2	-	-
HCM Lane LOS	B	A	F		
HCM 95th %tile Q(veh)	0.049	-	3.377	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	95	13	12	1134	169	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984				0.962	
Flt Protected	0.958			0.999		
Satd. Flow (prot)	1791	0	0	1942	2045	0
Flt Permitted	0.958			0.999		
Satd. Flow (perm)	1791	0	0	1942	2045	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			518	86	
Travel Time (s)	10.7			11.8	2.0	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	2%
Adj. Flow (vph)	123	17	13	1219	182	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	0	1232	252	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 82.0% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	9.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	95	13	12	1134	169	65
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	77	77	93	93	93	93
Heavy Vehicles, %	0	0	0	1	1	2
Mvmt Flow	123	17	13	1219	182	70

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1462	217	252	0	-	0
Stage 1	217	-	-	-	-	-
Stage 2	1245	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	143	828	1325	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	139	828	1325	-	-	-
Mov Capacity-2 Maneuver	139	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	266	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	108.2	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1325	-	154	-	-
HCM Lane V/C Ratio	0.01	-	0.911	-	-
HCM Control Delay (s)	7.744	0	108.2	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.029	-	6.444	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	5	6	216	859	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.989	
Flt Protected	0.957			0.999		
Satd. Flow (prot)	1795	0	0	1961	2110	0
Flt Permitted	0.957			0.999		
Satd. Flow (perm)	1795	0	0	1961	2110	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			518	86	
Travel Time (s)	10.7			11.8	2.0	
Peak Hour Factor	0.80	0.80	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	56	6	8	284	954	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	292	1041	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 59.9% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	45	5	6	216	859	78
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	80	80	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	56	6	8	284	954	87

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1298	998	1041	0	-	0
Stage 1	998	-	-	-	-	-
Stage 2	300	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	180	299	676	-	-	-
Stage 1	360	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	177	299	676	-	-	-
Mov Capacity-2 Maneuver	177	-	-	-	-	-
Stage 1	360	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.1	0.3	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	676	-	185	-	-
HCM Lane V/C Ratio	0.012	-	0.338	-	-
HCM Control Delay (s)	10.388	0	34.1	-	-
HCM Lane LOS	B	A	D		
HCM 95th %tile Q(veh)	0.035	-	1.402	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	95	13	12	1220	191	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984				0.966	
Flt Protected	0.958					
Satd. Flow (prot)	1791	0	0	1944	2054	0
Flt Permitted	0.958					
Satd. Flow (perm)	1791	0	0	1944	2054	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			136	86	
Travel Time (s)	10.7			3.1	2.0	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	1%	1%	2%
Adj. Flow (vph)	123	17	13	1312	205	70
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	0	1325	275	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 86.5% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	13.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	95	13	12	1220	191	65
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	77	77	93	93	93	93
Heavy Vehicles, %	0	0	0	1	1	2
Mvmt Flow	123	17	13	1312	205	70

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1578	240	275	0	-	0
Stage 1	240	-	-	-	-	-
Stage 2	1338	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	# 122	804	1300	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	# 117	804	1300	-	-	-
Mov Capacity-2 Maneuver	# 117	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	238	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	167.8	0.1	0
HCM LOS	F		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1300	-	130	-	-
HCM Lane V/C Ratio	0.01	-	1.079	-	-
HCM Control Delay (s)	7.797	0	167.8	-	-
HCM Lane LOS	A	A	F		
HCM 95th %tile Q(veh)	0.03	-	7.922	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	45	5	6	262	945	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	13	13	16	16
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.987				0.990	
Flt Protected	0.957			0.999		
Satd. Flow (prot)	1795	0	0	1961	2112	0
Flt Permitted	0.957			0.999		
Satd. Flow (perm)	1795	0	0	1961	2112	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	472			136	86	
Travel Time (s)	10.7			3.1	2.0	
Peak Hour Factor	0.80	0.80	0.76	0.76	0.90	0.90
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	56	6	8	345	1050	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	0	353	1137	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	45	5	6	262	945	78
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	80	80	76	76	90	90
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	56	6	8	345	1050	87

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1454	1093	1137	0	-	0
Stage 1	1093	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	145	263	622	-	-	-
Stage 1	324	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	143	263	622	-	-	-
Mov Capacity-2 Maneuver	143	-	-	-	-	-
Stage 1	324	-	-	-	-	-
Stage 2	699	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	45.1	0.2	0
HCM LOS	E		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	622	-	150	-	-
HCM Lane V/C Ratio	0.013	-	0.417	-	-
HCM Control Delay (s)	10.862	0	45.1	-	-
HCM Lane LOS	B	A	E		
HCM 95th %tile Q(veh)	0.039	-	1.835	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Greendale Avenue at Broadmeadow Road

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	20	18	2	1058	238	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936				0.997	
Flt Protected	0.974					
Satd. Flow (prot)	1732	0	0	2005	2001	0
Flt Permitted	0.974					
Satd. Flow (perm)	1732	0	0	2005	2001	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	518	
Travel Time (s)	8.8			10.9	11.8	
Peak Hour Factor	0.63	0.63	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	1%	0%
Adj. Flow (vph)	32	29	2	1114	259	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	0	0	1116	264	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 67.3% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	20	18	2	1058	238	5
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	63	63	95	95	92	92
Heavy Vehicles, %	0	0	50	1	1	0
Mvmt Flow	32	29	2	1114	259	5

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1379	261	264	0	-	0
Stage 1	261	-	-	-	-	-
Stage 2	1118	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.65	-	-	-
Pot Capacity-1 Maneuver	161	783	1067	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	160	783	1067	-	-	-
Mov Capacity-2 Maneuver	160	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	313	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.3	0	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1067	-	257	-	-
HCM Lane V/C Ratio	0.002	-	0.235	-	-
HCM Control Delay (s)	8.381	0	23.3	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.006	-	0.888	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	7	15	9	230	989	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.908				0.999	
Flt Protected	0.984			0.998		
Satd. Flow (prot)	1698	0	0	2023	2005	0
Flt Permitted	0.984			0.998		
Satd. Flow (perm)	1698	0	0	2023	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	518	
Travel Time (s)	8.8			10.9	11.8	
Peak Hour Factor	0.79	0.79	0.78	0.78	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	9	19	12	295	1075	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	0	307	1083	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 62.5% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	15	9	230	989	7
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	79	79	78	78	92	92
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	9	19	12	295	1075	8

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1397	1079	1083	0	-	0
Stage 1	1079	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	157	268	652	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	154	268	652	-	-	-
Mov Capacity-2 Maneuver	154	-	-	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	726	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24	0.4	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	652	-	217	-	-
HCM Lane V/C Ratio	0.018	-	0.128	-	-
HCM Control Delay (s)	10.621	0	24	-	-
HCM Lane LOS	B	A	C		
HCM 95th %tile Q(veh)	0.054	-	0.434	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	21	19	2	1177	264	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936				0.998	
Flt Protected	0.974					
Satd. Flow (prot)	1732	0	0	2005	2003	0
Flt Permitted	0.974					
Satd. Flow (perm)	1732	0	0	2005	2003	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	518	
Travel Time (s)	8.8			10.9	11.8	
Peak Hour Factor	0.63	0.63	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	1%	0%
Adj. Flow (vph)	33	30	2	1239	287	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	0	0	1241	292	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	21	19	2	1177	264	5
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	63	63	95	95	92	92
Heavy Vehicles, %	0	0	50	1	1	0
Mvmt Flow	33	30	2	1239	287	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1533	290	292	0	-	0
Stage 1	290	-	-	-	-	-
Stage 2	1243	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.65	-	-	-
Pot Capacity-1 Maneuver	130	754	1040	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	129	754	1040	-	-	-
Mov Capacity-2 Maneuver	129	-	-	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	273	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.9	0	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1040	-	213	-	-
HCM Lane V/C Ratio	0.002	-	0.298	-	-
HCM Control Delay (s)	8.469	0	28.9	-	-
HCM Lane LOS	A	A	D		
HCM 95th %tile Q(veh)	0.006	-	1.197	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	7	16	9	264	1101	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907				0.999	
Flt Protected	0.985			0.998		
Satd. Flow (prot)	1697	0	0	2023	2005	0
Flt Permitted	0.985			0.998		
Satd. Flow (perm)	1697	0	0	2023	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	518	
Travel Time (s)	8.8			10.9	11.8	
Peak Hour Factor	0.79	0.79	0.78	0.78	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	9	20	12	338	1197	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	350	1205	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 68.4%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	16	9	264	1101	7
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	79	79	78	78	92	92
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	9	20	12	338	1197	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1563	1201	1204	0	-	0
Stage 1	1201	-	-	-	-	-
Stage 2	362	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	124	227	587	-	-	-
Stage 1	288	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	121	227	587	-	-	-
Mov Capacity-2 Maneuver	121	-	-	-	-	-
Stage 1	288	-	-	-	-	-
Stage 2	691	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29	0.4	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	587	-	179	-	-
HCM Lane V/C Ratio	0.02	-	0.163	-	-
HCM Control Delay (s)	11.256	0	29	-	-
HCM Lane LOS	B	A	D		
HCM 95th %tile Q(veh)	0.06	-	0.566	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	21	19	2	1182	286	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936				0.998	
Flt Protected	0.974					
Satd. Flow (prot)	1732	0	0	2005	2003	0
Flt Permitted	0.974					
Satd. Flow (perm)	1732	0	0	2005	2003	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	231	
Travel Time (s)	8.8			10.9	5.3	
Peak Hour Factor	0.63	0.63	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	1%	0%
Adj. Flow (vph)	33	30	2	1244	311	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	0	0	1246	316	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 73.8% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	21	19	2	1182	286	5
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	63	63	95	95	92	92
Heavy Vehicles, %	0	0	50	1	1	0
Mvmt Flow	33	30	2	1244	311	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1562	314	316	0	-	0
Stage 1	314	-	-	-	-	-
Stage 2	1248	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.65	-	-	-
Pot Capacity-1 Maneuver	124	731	1017	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	123	731	1017	-	-	-
Mov Capacity-2 Maneuver	123	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	271	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30.6	0	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1017	-	203	-	-
HCM Lane V/C Ratio	0.002	-	0.313	-	-
HCM Control Delay (s)	8.547	0	30.6	-	-
HCM Lane LOS	A	A	D		
HCM 95th %tile Q(veh)	0.006	-	1.272	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	7	16	9	285	1113	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907				0.999	
Flt Protected	0.985			0.998		
Satd. Flow (prot)	1697	0	0	2023	2005	0
Flt Permitted	0.985			0.998		
Satd. Flow (perm)	1697	0	0	2023	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	230	
Travel Time (s)	8.8			10.9	5.2	
Peak Hour Factor	0.79	0.79	0.78	0.78	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	9	20	12	365	1210	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	377	1218	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 69.0% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	16	9	285	1113	7
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	79	79	78	78	92	92
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	9	20	12	365	1210	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1602	1214	1217	0	-	0
Stage 1	1214	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	118	223	580	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	115	223	580	-	-	-
Mov Capacity-2 Maneuver	115	-	-	-	-	-
Stage 1	284	-	-	-	-	-
Stage 2	672	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30	0.3	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	580	-	173	-	-
HCM Lane V/C Ratio	0.02	-	0.168	-	-
HCM Control Delay (s)	11.333	0	30	-	-
HCM Lane LOS	B	A	D		
HCM 95th %tile Q(veh)	0.061	-	0.588	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	21	19	2	1121	180	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936				0.997	
Flt Protected	0.974					
Satd. Flow (prot)	1732	0	0	2005	2001	0
Flt Permitted	0.974					
Satd. Flow (perm)	1732	0	0	2005	2001	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	518	
Travel Time (s)	8.8			10.9	11.8	
Peak Hour Factor	0.63	0.63	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	1%	0%
Adj. Flow (vph)	33	30	2	1180	196	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	0	0	1182	201	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	21	19	2	1121	180	5
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	63	63	95	95	92	92
Heavy Vehicles, %	0	0	50	1	1	0
Mvmt Flow	33	30	2	1180	196	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1382	198	201	0	-	0
Stage 1	198	-	-	-	-	-
Stage 2	1184	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.65	-	-	-
Pot Capacity-1 Maneuver	160	848	1130	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	293	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	159	848	1130	-	-	-
Mov Capacity-2 Maneuver	159	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	292	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.4	0	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1130	-	259	-	-
HCM Lane V/C Ratio	0.002	-	0.245	-	-
HCM Control Delay (s)	8.192	0	23.4	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.006	-	0.938	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	7	16	9	208	851	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907				0.999	
Flt Protected	0.985			0.998		
Satd. Flow (prot)	1697	0	0	2023	2005	0
Flt Permitted	0.985			0.998		
Satd. Flow (perm)	1697	0	0	2023	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	518	
Travel Time (s)	8.8			10.9	11.8	
Peak Hour Factor	0.79	0.79	0.78	0.78	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	9	20	12	267	925	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	279	933	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 55.2% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	16	9	208	851	7
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	79	79	78	78	92	92
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	9	20	12	267	925	8

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1219	929	933	0	-	0
Stage 1	929	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	201	327	742	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	197	327	742	-	-	-
Mov Capacity-2 Maneuver	197	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	749	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.8	0.4	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	742	-	272	-	-
HCM Lane V/C Ratio	0.016	-	0.107	-	-
HCM Control Delay (s)	9.928	0	19.8	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.047	-	0.355	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	21	19	2	1126	202	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.936				0.997	
Flt Protected	0.974					
Satd. Flow (prot)	1732	0	0	2005	2001	0
Flt Permitted	0.974					
Satd. Flow (perm)	1732	0	0	2005	2001	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	231	
Travel Time (s)	8.8			10.9	5.3	
Peak Hour Factor	0.63	0.63	0.95	0.95	0.92	0.92
Heavy Vehicles (%)	0%	0%	50%	1%	1%	0%
Adj. Flow (vph)	33	30	2	1185	220	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	63	0	0	1187	225	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	21	19	2	1126	202	5
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	63	63	95	95	92	92
Heavy Vehicles, %	0	0	50	1	1	0
Mvmt Flow	33	30	2	1185	220	5

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1411	222	225	0	-	0
Stage 1	222	-	-	-	-	-
Stage 2	1189	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.65	-	-	-
Pot Capacity-1 Maneuver	154	823	1106	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	153	823	1106	-	-	-
Mov Capacity-2 Maneuver	153	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.3	0	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1106	-	249	-	-
HCM Lane V/C Ratio	0.002	-	0.255	-	-
HCM Control Delay (s)	8.261	0	24.3	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.006	-	0.985	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	7	16	9	229	863	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.907				0.999	
Flt Protected	0.985			0.998		
Satd. Flow (prot)	1697	0	0	2023	2005	0
Flt Permitted	0.985			0.998		
Satd. Flow (perm)	1697	0	0	2023	2005	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	385			481	230	
Travel Time (s)	8.8			10.9	5.2	
Peak Hour Factor	0.79	0.79	0.78	0.78	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	9	20	12	294	938	8
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	0	306	946	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 55.8% ICU Level of Service B
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	7	16	9	229	863	7
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	79	79	78	78	92	92
Heavy Vehicles, %	0	0	0	0	1	0
Mvmt Flow	9	20	12	294	938	8

Major/Minor	Minor2	Major1			Major2	
Conflicting Flow All	1259	942	946	0	-	0
Stage 1	942	-	-	-	-	-
Stage 2	317	-	-	-	-	-
Follow-up Headway	3.5	3.3	2.2	-	-	-
Pot Capacity-1 Maneuver	190	322	734	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Time blocked-Platoon, %				-	-	-
Mov Capacity-1 Maneuver	186	322	734	-	-	-
Mov Capacity-2 Maneuver	186	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	728	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	0.4	0
HCM LOS	C		

Minor Lane / Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	734	-	263	-	-
HCM Lane V/C Ratio	0.016	-	0.111	-	-
HCM Control Delay (s)	9.983	0	20.4	-	-
HCM Lane LOS	A	A	C		
HCM 95th %tile Q(veh)	0.048	-	0.369	-	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Great Plain Avenue at Greendale Avenue

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	177	309	89	45	311	390	66	337	36	130	110	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.929			0.989			0.978	
Flt Protected		0.985			0.997			0.993			0.978	
Satd. Flow (prot)	0	1979	0	0	1915	0	0	1886	0	0	1912	0
Flt Permitted		0.461			0.927			0.904			0.536	
Satd. Flow (perm)	0	926	0	0	1781	0	0	1717	0	0	1048	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			77			6			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	246	429	124	54	375	470	79	401	43	146	124	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	799	0	0	899	0	0	523	0	0	323	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			25.0			25.0	
Actuated g/C Ratio		0.46			0.46			0.38			0.38	
v/c Ratio		1.84			1.04			0.79			0.79	
Control Delay		407.2			61.4			28.3			33.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		407.2			61.4			28.3			33.6	
LOS		F			E			C			C	
Approach Delay		407.2			61.4			28.3			33.6	
Approach LOS		F			E			C			C	

Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.84
Intersection Signal Delay: 159.7
Intersection LOS: F
Intersection Capacity Utilization 124.3%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	799	899	523	323
v/c Ratio	1.84	1.04	0.79	0.79
Control Delay	407.2	61.4	28.3	33.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	407.2	61.4	28.3	33.6
Queue Length 50th (ft)	~500	~378	175	105
Queue Length 95th (ft)	#522	#512	#268	#234
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	434	863	664	411
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.84	1.04	0.79	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	44	242	65	31	218	105	72	91	66	398	447	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.960			0.961			0.982	
Flt Protected		0.994			0.996			0.985			0.980	
Satd. Flow (prot)	0	2007	0	0	1998	0	0	1858	0	0	1941	0
Flt Permitted		0.922			0.944			0.682			0.742	
Satd. Flow (perm)	0	1861	0	0	1894	0	0	1287	0	0	1470	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			30			26			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	48	266	71	34	242	117	96	121	88	428	481	139
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	385	0	0	393	0	0	305	0	0	1048	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.0			22.0			25.3			25.3	
Actuated g/C Ratio		0.38			0.38			0.44			0.44	
v/c Ratio		0.53			0.53			0.52			1.61	
Control Delay		15.5			14.9			16.5			300.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.5			14.9			16.5			300.3	
LOS		B			B			B			F	
Approach Delay		15.5			14.9			16.5			300.3	
Approach LOS		B			B			B			F	

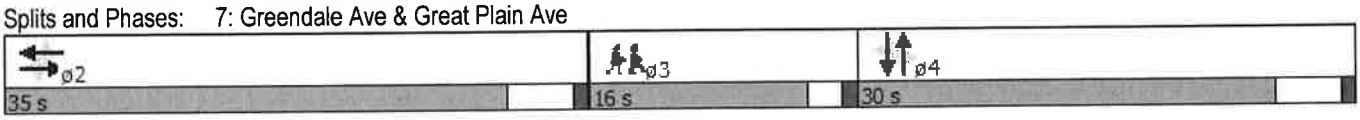
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 57.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 155.6
Intersection LOS: F
Intersection Capacity Utilization 106.8%
ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	385	393	305	1048
v/c Ratio	0.53	0.53	0.52	1.61
Control Delay	15.5	14.9	16.5	300.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.5	14.9	16.5	300.3
Queue Length 50th (ft)	93	91	67	~554
Queue Length 95th (ft)	157	155	121	#877
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	990	1015	581	652
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.39	0.52	1.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	198	325	94	47	327	435	69	375	38	142	121	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.927			0.989			0.977	
Flt Protected		0.984			0.997			0.993			0.978	
Satd. Flow (prot)	0	1977	0	0	1911	0	0	1886	0	0	1910	0
Flt Permitted		0.421			0.923			0.901			0.501	
Satd. Flow (perm)	0	846	0	0	1770	0	0	1711	0	0	978	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			82			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	275	451	131	57	394	524	82	446	45	160	136	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	857	0	0	975	0	0	573	0	0	356	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			25.0			25.0	
Actuated g/C Ratio		0.46			0.46			0.38			0.38	
v/c Ratio		2.16			1.13			0.87			0.93	
Control Delay		548.3			93.6			34.8			53.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		548.3			93.6			34.8			53.4	
LOS		F			F			C			D	
Approach Delay		548.3			93.6			34.8			53.4	
Approach LOS		F			F			C			D	

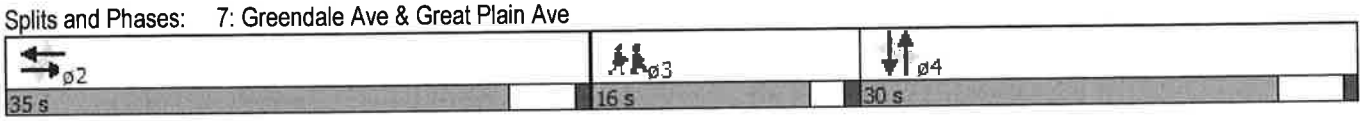
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 2.16
Intersection Signal Delay: 217.4 Intersection LOS: F
Intersection Capacity Utilization 135.1% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	857	975	573	356
v/c Ratio	2.16	1.13	0.87	0.93
Control Delay	548.3	93.6	34.8	53.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	548.3	93.6	34.8	53.4
Queue Length 50th (ft)	~415	~445	201	127
Queue Length 95th (ft)	#430	#577	#337	#280
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	397	861	661	384
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.16	1.13	0.87	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	50	254	68	33	229	119	76	103	69	440	494	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.958			0.962			0.982	
Flt Protected		0.993			0.996			0.985			0.980	
Satd. Flow (prot)	0	2004	0	0	1994	0	0	1860	0	0	1941	0
Flt Permitted		0.910			0.940			0.692			0.724	
Satd. Flow (perm)	0	1837	0	0	1882	0	0	1307	0	0	1434	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			32			25			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	55	279	75	37	254	132	101	137	92	473	531	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	409	0	0	423	0	0	330	0	0	1159	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		23.6			23.6			25.2			25.2	
Actuated g/C Ratio		0.40			0.40			0.43			0.43	
v/c Ratio		0.55			0.55			0.57			1.87	
Control Delay		15.7			15.0			18.3			417.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.7			15.0			18.3			417.1	
LOS		B			B			B			F	
Approach Delay		15.7			15.0			18.3			417.1	
Approach LOS		B			B			B			F	

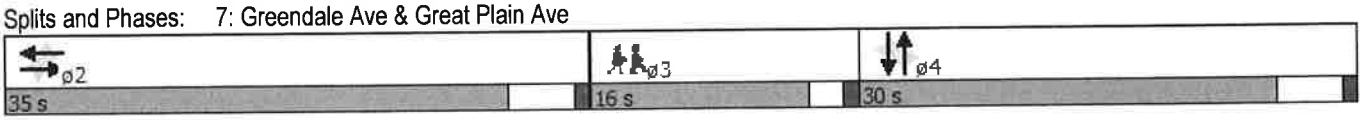
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary	

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 58.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.87
Intersection Signal Delay: 216.4 Intersection LOS: F
Intersection Capacity Utilization 116.2% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	409	423	330	1159
v/c Ratio	0.55	0.55	0.57	1.87
Control Delay	15.7	15.0	18.3	417.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.7	15.0	18.3	417.1
Queue Length 50th (ft)	101	100	81	~682
Queue Length 95th (ft)	170	170	133	#987
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	952	983	574	620
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.43	0.57	1.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	199	325	94	47	327	438	69	376	38	153	127	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.927			0.989			0.977	
Flt Protected		0.984			0.997			0.993			0.978	
Satd. Flow (prot)	0	1977	0	0	1911	0	0	1886	0	0	1910	0
Flt Permitted		0.419			0.923			0.896			0.498	
Satd. Flow (perm)	0	842	0	0	1770	0	0	1702	0	0	972	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			83			5			13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	276	451	131	57	394	528	82	448	45	172	143	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	979	0	0	575	0	0	380	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			25.0			25.0	
Actuated g/C Ratio		0.46			0.46			0.38			0.38	
v/c Ratio		2.17			1.14			0.88			1.00	
Control Delay		554.3			95.5			35.8			69.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		554.3			95.5			35.8			69.4	
LOS		F			F			D			E	
Approach Delay		554.3			95.5			35.8			69.4	
Approach LOS		F			F			D			E	

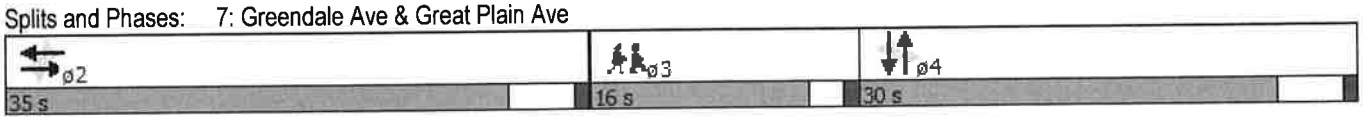
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 2.17
Intersection Signal Delay: 220.6
Intersection LOS: F
Intersection Capacity Utilization 138.6%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	858	979	575	380
v/c Ratio	2.17	1.14	0.88	1.00
Control Delay	554.3	95.5	35.8	69.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	554.3	95.5	35.8	69.4
Queue Length 50th (ft)	~417	~448	203	141
Queue Length 95th (ft)	#433	#580	#341	#306
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	395	861	657	381
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.17	1.14	0.88	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	55	254	68	33	229	130	76	108	69	446	497	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.955			0.963			0.982	
Flt Protected		0.993			0.996			0.985			0.980	
Satd. Flow (prot)	0	2006	0	0	1988	0	0	1862	0	0	1942	0
Flt Permitted		0.899			0.942			0.699			0.718	
Satd. Flow (perm)	0	1816	0	0	1880	0	0	1322	0	0	1422	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			35			24			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	60	279	75	37	254	144	101	144	92	480	534	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	435	0	0	337	0	0	1172	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		23.8			23.8			25.3			25.3	
Actuated g/C Ratio		0.40			0.40			0.43			0.43	
v/c Ratio		0.56			0.56			0.58			1.91	
Control Delay		15.9			15.1			18.6			436.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.9			15.1			18.6			436.3	
LOS		B			B			B			F	
Approach Delay		15.9			15.1			18.6			436.3	
Approach LOS		B			B			B			F	

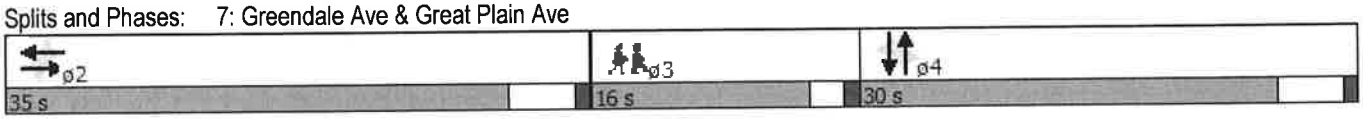
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 59.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.91
Intersection Signal Delay: 225.1
Intersection LOS: F
Intersection Capacity Utilization 118.9%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	414	435	337	1172
v/c Ratio	0.56	0.56	0.58	1.91
Control Delay	15.9	15.1	18.6	436.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.9	15.1	18.6	436.3
Queue Length 50th (ft)	103	103	85	~703
Queue Length 95th (ft)	173	174	137	#1001
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	938	980	578	613
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.44	0.58	1.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	198	325	94	47	327	405	69	349	38	97	82	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.930			0.989			0.969	
Flt Protected		0.984			0.997			0.992			0.980	
Satd. Flow (prot)	0	1977	0	0	1918	0	0	1884	0	0	1892	0
Flt Permitted		0.436			0.920			0.914			0.591	
Satd. Flow (perm)	0	876	0	0	1769	0	0	1736	0	0	1141	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			76			6			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	275	451	131	57	394	488	82	415	45	109	92	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	857	0	0	939	0	0	542	0	0	261	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			25.0			25.0	
Actuated g/C Ratio		0.46			0.46			0.38			0.38	
v/c Ratio		2.09			1.10			0.81			0.58	
Control Delay		515.5			79.9			29.5			20.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		515.5			79.9			29.5			20.9	
LOS		F			E			C			C	
Approach Delay		515.5			79.9			29.5			20.9	
Approach LOS		F			E			C			C	

Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 2.09
Intersection Signal Delay: 207.1
Intersection LOS: F
Intersection Capacity Utilization 119.7%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	857	939	542	261
v/c Ratio	2.09	1.10	0.81	0.58
Control Delay	515.5	79.9	29.5	20.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	515.5	79.9	29.5	20.9
Queue Length 50th (ft)	~561	~417	184	73
Queue Length 95th (ft)	#577	#550	#304	143
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	411	857	671	450
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.09	1.10	0.81	0.58

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	50	254	68	33	229	89	76	77	69	322	362	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.966			0.958			0.976	
Flt Protected		0.993			0.995			0.983			0.981	
Satd. Flow (prot)	0	2004	0	0	2009	0	0	1849	0	0	1932	0
Flt Permitted		0.914			0.936			0.661			0.755	
Satd. Flow (perm)	0	1845	0	0	1890	0	0	1243	0	0	1487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			24			29			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	55	279	75	37	254	99	101	103	92	346	389	155
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	409	0	0	390	0	0	296	0	0	890	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		23.2			23.2			25.2			25.2	
Actuated g/C Ratio		0.40			0.40			0.43			0.43	
v/c Ratio		0.55			0.51			0.54			1.37	
Control Delay		15.8			14.7			17.1			198.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.8			14.7			17.1			198.2	
LOS		B			B			B			F	
Approach Delay		15.8			14.7			17.1			198.2	
Approach LOS		B			B			B			F	

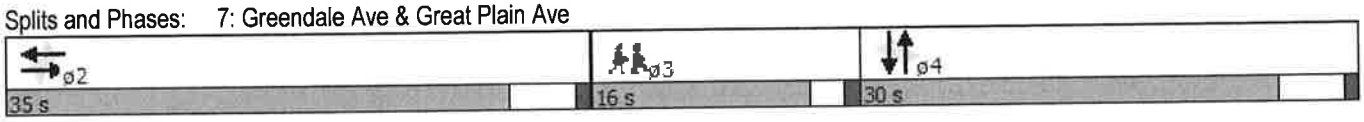
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 58.5
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.37
Intersection Signal Delay: 97.6
Intersection LOS: F
Intersection Capacity Utilization 100.6%
ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	409	390	296	890
v/c Ratio	0.55	0.51	0.54	1.37
Control Delay	15.8	14.7	17.1	198.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.8	14.7	17.1	198.2
Queue Length 50th (ft)	101	92	66	~439
Queue Length 95th (ft)	170	156	118	#723
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	963	990	552	649
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.39	0.54	1.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	199	325	94	47	327	408	69	350	38	108	88	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.930			0.989			0.969	
Flt Protected		0.984			0.997			0.993			0.979	
Satd. Flow (prot)	0	1977	0	0	1918	0	0	1886	0	0	1890	0
Flt Permitted		0.433			0.920			0.910			0.568	
Satd. Flow (perm)	0	870	0	0	1769	0	0	1728	0	0	1097	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			77			6			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	276	451	131	57	394	492	82	417	45	121	99	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	943	0	0	544	0	0	285	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		30.0			30.0			25.0			25.0	
Actuated g/C Ratio		0.46			0.46			0.38			0.38	
v/c Ratio		2.10			1.10			0.81			0.66	
Control Delay		523.4			81.6			30.0			24.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		523.4			81.6			30.0			24.3	
LOS		F			F			C			C	
Approach Delay		523.4			81.6			30.0			24.3	
Approach LOS		F			F			C			C	

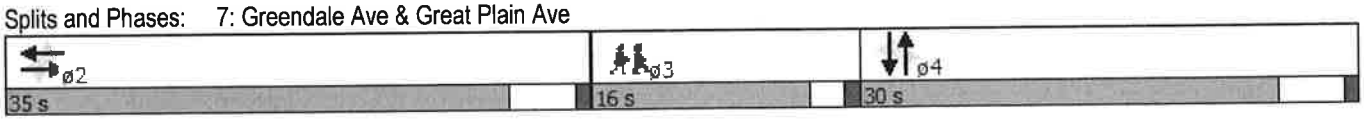
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 2.10
Intersection Signal Delay: 208.8
Intersection LOS: F
Intersection Capacity Utilization 123.1%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	858	943	544	285
v/c Ratio	2.10	1.10	0.81	0.66
Control Delay	523.4	81.6	30.0	24.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	523.4	81.6	30.0	24.3
Queue Length 50th (ft)	~564	~420	185	84
Queue Length 95th (ft)	#422	#553	#307	#167
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	408	857	668	433
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.10	1.10	0.81	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	55	254	68	33	229	100	76	82	69	328	365	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.963			0.959			0.976	
Flt Protected		0.993			0.995			0.984			0.981	
Satd. Flow (prot)	0	2006	0	0	2003	0	0	1853	0	0	1932	0
Flt Permitted		0.905			0.937			0.665			0.749	
Satd. Flow (perm)	0	1828	0	0	1886	0	0	1252	0	0	1475	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			27			28			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	60	279	75	37	254	111	101	109	92	353	392	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	402	0	0	302	0	0	903	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		30.0	30.0	
Total Split (%)	43.2%	43.2%		43.2%	43.2%		37.0%	37.0%		37.0%	37.0%	
Maximum Green (s)	30.0	30.0		30.0	30.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		23.5			23.5			25.3			25.3	
Actuated g/C Ratio		0.40			0.40			0.43			0.43	
v/c Ratio		0.56			0.52			0.55			1.41	
Control Delay		15.9			14.7			17.6			215.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.9			14.7			17.6			215.3	
LOS		B			B			B			F	
Approach Delay		15.9			14.7			17.6			215.3	
Approach LOS		B			B			B			F	

Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 58.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 105.0
Intersection LOS: F
Intersection Capacity Utilization 103.2%
ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	414	402	302	903
v/c Ratio	0.56	0.52	0.55	1.41
Control Delay	15.9	14.7	17.6	215.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	15.9	14.7	17.6	215.3
Queue Length 50th (ft)	103	95	70	~457
Queue Length 95th (ft)	173	160	121	#738
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	949	984	553	640
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.41	0.55	1.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	199	325	94	47	327	438	69	376	38	153	127	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.927			0.989			0.977	
Flt Protected		0.984			0.997			0.993			0.978	
Satd. Flow (prot)	0	1977	0	0	1911	0	0	1886	0	0	1910	0
Flt Permitted		0.474			0.924			0.883			0.427	
Satd. Flow (perm)	0	952	0	0	1771	0	0	1677	0	0	834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			92			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	276	451	131	57	394	528	82	448	45	172	143	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	979	0	0	575	0	0	380	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	40.0	40.0		40.0	40.0		25.0	25.0		25.0	25.0	
Total Split (%)	49.4%	49.4%		49.4%	49.4%		30.9%	30.9%		30.9%	30.9%	
Maximum Green (s)	35.0	35.0		35.0	35.0		20.0	20.0		20.0	20.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		35.0			35.0			20.0			20.0	
Actuated g/C Ratio		0.54			0.54			0.31			0.31	
v/c Ratio		1.65			0.98			1.11			1.44	
Control Delay		322.1			40.9			97.9			241.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		322.1			40.9			97.9			241.8	
LOS		F			D			F			F	
Approach Delay		322.1			40.9			97.9			241.8	
Approach LOS		F			D			F			F	

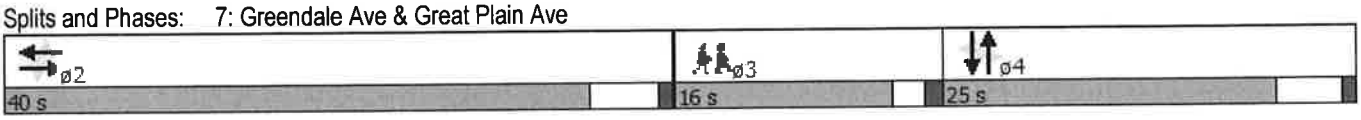
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.65
Intersection Signal Delay: 166.4 Intersection LOS: F
Intersection Capacity Utilization 138.6% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	858	979	575	380
v/c Ratio	1.65	0.98	1.11	1.44
Control Delay	322.1	40.9	97.9	241.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	322.1	40.9	97.9	241.8
Queue Length 50th (ft)	~514	322	~267	~209
Queue Length 95th (ft)	#530	#520	#403	#359
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	519	996	519	264
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.65	0.98	1.11	1.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	55	254	68	33	229	130	76	108	69	446	497	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.955			0.963			0.982	
Flt Protected		0.993			0.996			0.985			0.980	
Satd. Flow (prot)	0	2006	0	0	1988	0	0	1862	0	0	1942	0
Flt Permitted		0.761			0.901			0.620			0.728	
Satd. Flow (perm)	0	1538	0	0	1798	0	0	1172	0	0	1442	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			25			29			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	60	279	75	37	254	144	101	144	92	480	534	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	435	0	0	337	0	0	1172	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	25.0	25.0		25.0	25.0		49.0	49.0		49.0	49.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		54.4%	54.4%		54.4%	54.4%	
Maximum Green (s)	20.0	20.0		20.0	20.0		44.0	44.0		44.0	44.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		20.0			20.0			44.0			44.0	
Actuated g/C Ratio		0.27			0.27			0.59			0.59	
v/c Ratio		0.98			0.86			0.48			1.36	
Control Delay		68.1			43.7			10.4			189.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		68.1			43.7			10.4			189.0	
LOS		E			D			B			F	
Approach Delay		68.1			43.7			10.4			189.0	
Approach LOS		E			D			B			F	

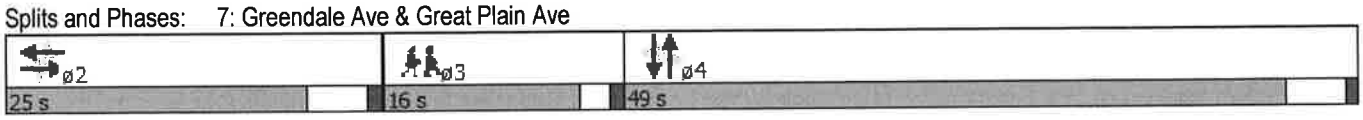
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	18%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 115.5 Intersection LOS: F
Intersection Capacity Utilization 118.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	414	435	337	1172
v/c Ratio	0.98	0.86	0.48	1.36
Control Delay	68.1	43.7	10.4	189.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	68.1	43.7	10.4	189.0
Queue Length 50th (ft)	183	179	70	~727
Queue Length 95th (ft)	#360	#339	96	#964
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	423	504	708	862
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.98	0.86	0.48	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	199	325	94	47	327	408	69	350	38	108	88	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.930			0.989			0.969	
Flt Protected		0.984			0.997			0.993			0.979	
Satd. Flow (prot)	0	1977	0	0	1918	0	0	1886	0	0	1890	0
Flt Permitted		0.500			0.908			0.876			0.391	
Satd. Flow (perm)	0	1004	0	0	1746	0	0	1664	0	0	755	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			71			4			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	276	451	131	57	394	492	82	417	45	121	99	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	943	0	0	544	0	0	285	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	70.0	70.0		70.0	70.0		34.0	34.0		34.0	34.0	
Total Split (%)	58.3%	58.3%		58.3%	58.3%		28.3%	28.3%		28.3%	28.3%	
Maximum Green (s)	65.0	65.0		65.0	65.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		65.0			65.0			29.0			29.0	
Actuated g/C Ratio		0.62			0.62			0.28			0.28	
v/c Ratio		1.36			0.84			1.17			1.30	
Control Delay		193.1			23.1			131.4			196.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		193.1			23.1			131.4			196.8	
LOS		F			C			F			F	
Approach Delay		193.1			23.1			131.4			196.8	
Approach LOS		F			C			F			F	

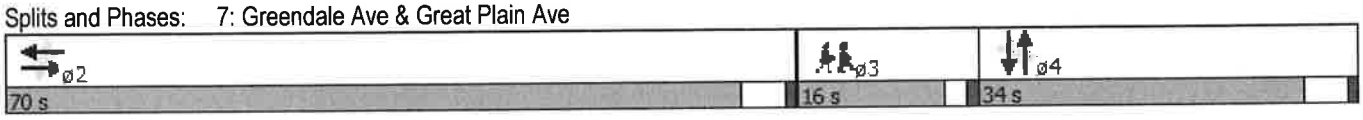
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	13%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 104
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 119.8
Intersection LOS: F
Intersection Capacity Utilization 123.1%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	858	943	544	285
v/c Ratio	1.36	0.84	1.17	1.30
Control Delay	193.1	23.1	131.4	196.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	193.1	23.1	131.4	196.8
Queue Length 50th (ft)	~756	428	~432	~239
Queue Length 95th (ft)	#705	529	#578	#401
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	632	1117	466	219
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.36	0.84	1.17	1.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	55	254	68	33	229	100	76	82	69	328	365	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.963			0.959			0.976	
Flt Protected		0.993			0.995			0.984			0.981	
Satd. Flow (prot)	0	2006	0	0	2003	0	0	1853	0	0	1932	0
Flt Permitted		0.833			0.918			0.654			0.755	
Satd. Flow (perm)	0	1683	0	0	1848	0	0	1231	0	0	1487	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			22			35			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	60	279	75	37	254	111	101	109	92	353	392	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	402	0	0	302	0	0	903	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	24.0	24.0		24.0	24.0		41.0	41.0		41.0	41.0	
Total Split (%)	29.6%	29.6%		29.6%	29.6%		50.6%	50.6%		50.6%	50.6%	
Maximum Green (s)	19.0	19.0		19.0	19.0		36.0	36.0		36.0	36.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		19.0			19.0			36.0			36.0	
Actuated g/C Ratio		0.29			0.29			0.55			0.55	
v/c Ratio		0.83			0.72			0.43			1.09	
Control Delay		37.4			28.7			9.8			75.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		37.4			28.7			9.8			75.7	
LOS		D			C			A			E	
Approach Delay		37.4			28.7			9.8			75.7	
Approach LOS		D			C			A			E	

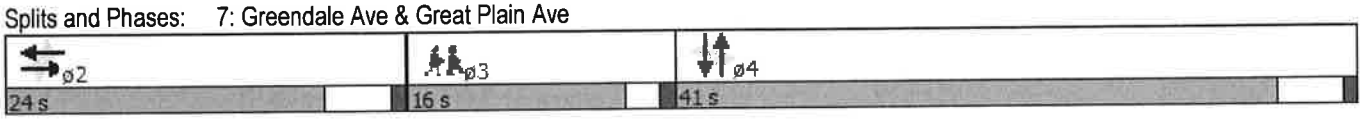
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	20%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 81
Actuated Cycle Length: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 48.6
Intersection LOS: D
Intersection Capacity Utilization 103.2%
ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	414	402	302	903
v/c Ratio	0.83	0.72	0.43	1.09
Control Delay	37.4	28.7	9.8	75.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.4	28.7	9.8	75.7
Queue Length 50th (ft)	147	134	55	~412
Queue Length 95th (ft)	#292	#252	80	#623
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	501	555	697	831
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.83	0.72	0.43	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	199	325	94	47	327	438	69	376	38	153	127	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.927			0.989			0.977	
Flt Protected		0.984			0.997			0.993			0.978	
Satd. Flow (prot)	0	1977	0	0	1911	0	0	1886	0	0	1910	0
Flt Permitted		0.415			0.921			0.894			0.491	
Satd. Flow (perm)	0	834	0	0	1766	0	0	1698	0	0	959	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			77			5			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	276	451	131	57	394	528	82	448	45	172	143	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	979	0	0	575	0	0	380	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	40.0	40.0		40.0	40.0		34.0	34.0		34.0	34.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%		37.8%	37.8%		37.8%	37.8%	
Maximum Green (s)	35.0	35.0		35.0	35.0		29.0	29.0		29.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		35.0			35.0			29.0			29.0	
Actuated g/C Ratio		0.47			0.47			0.39			0.39	
v/c Ratio		2.15			1.12			0.86			0.99	
Control Delay		542.6			89.5			35.9			69.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		542.6			89.5			35.9			69.6	
LOS		F			F			D			E	
Approach Delay		542.6			89.5			35.9			69.6	
Approach LOS		F			F			D			E	

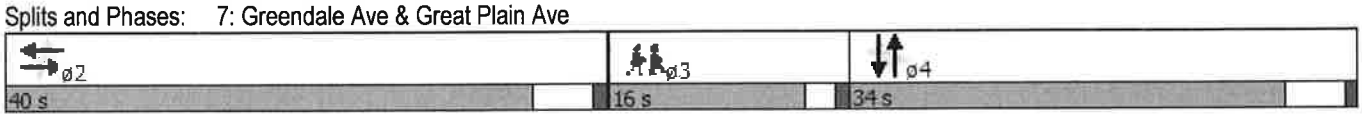
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	18%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 2.15
Intersection Signal Delay: 215.0 Intersection LOS: F
Intersection Capacity Utilization 138.6% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	858	979	575	380
v/c Ratio	2.15	1.12	0.86	0.99
Control Delay	542.6	89.5	35.9	69.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	542.6	89.5	35.9	69.6
Queue Length 50th (ft)	~469	~508	233	164
Queue Length 95th (ft)	#471	#640	#369	#338
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	400	875	668	383
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.15	1.12	0.86	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	55	254	68	33	229	130	76	108	69	446	497	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.955			0.963			0.982	
Flt Protected		0.993			0.996			0.985			0.980	
Satd. Flow (prot)	0	2006	0	0	1988	0	0	1862	0	0	1942	0
Flt Permitted		0.782			0.912			0.624			0.727	
Satd. Flow (perm)	0	1580	0	0	1820	0	0	1180	0	0	1440	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			26			29			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	60	279	75	37	254	144	101	144	92	480	534	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	435	0	0	337	0	0	1172	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	26.0	26.0		26.0	26.0		48.0	48.0		48.0	48.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%		53.3%	53.3%		53.3%	53.3%	
Maximum Green (s)	21.0	21.0		21.0	21.0		43.0	43.0		43.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		21.0			21.0			43.0			43.0	
Actuated g/C Ratio		0.28			0.28			0.58			0.58	
v/c Ratio		0.91			0.81			0.48			1.39	
Control Delay		51.9			37.5			11.0			204.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		51.9			37.5			11.0			204.4	
LOS		D			D			B			F	
Approach Delay		51.9			37.5			11.0			204.4	
Approach LOS		D			D			B			F	

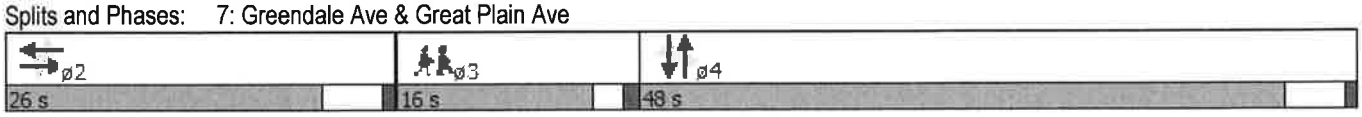
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	18%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.39
Intersection Signal Delay: 119.2 Intersection LOS: F
Intersection Capacity Utilization 118.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	414	435	337	1172
v/c Ratio	0.91	0.81	0.48	1.39
Control Delay	51.9	37.5	11.0	204.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	51.9	37.5	11.0	204.4
Queue Length 50th (ft)	177	174	73	~737
Queue Length 95th (ft)	#343	#323	100	#974
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	456	535	697	841
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.91	0.81	0.48	1.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	199	325	94	47	327	408	69	350	38	108	88	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.930			0.989			0.969	
Flt Protected		0.984			0.997			0.993			0.979	
Satd. Flow (prot)	0	1977	0	0	1918	0	0	1886	0	0	1890	0
Flt Permitted		0.469			0.919			0.901			0.497	
Satd. Flow (perm)	0	942	0	0	1768	0	0	1711	0	0	960	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			77			5			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.72	0.72	0.72	0.83	0.83	0.83	0.84	0.84	0.84	0.89	0.89	0.89
Heavy Vehicles (%)	2%	2%	1%	2%	1%	1%	3%	2%	3%	0%	1%	6%
Adj. Flow (vph)	276	451	131	57	394	492	82	417	45	121	99	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	858	0	0	943	0	0	544	0	0	285	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	44.0	44.0		44.0	44.0		30.0	30.0		30.0	30.0	
Total Split (%)	48.9%	48.9%		48.9%	48.9%		33.3%	33.3%		33.3%	33.3%	
Maximum Green (s)	39.0	39.0		39.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		39.0			39.0			25.0			25.0	
Actuated g/C Ratio		0.53			0.53			0.34			0.34	
v/c Ratio		1.71			0.97			0.94			0.85	
Control Delay		347.9			41.3			50.6			47.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		347.9			41.3			50.6			47.8	
LOS		F			D			D			D	
Approach Delay		347.9			41.3			50.6			47.8	
Approach LOS		F			D			D			D	

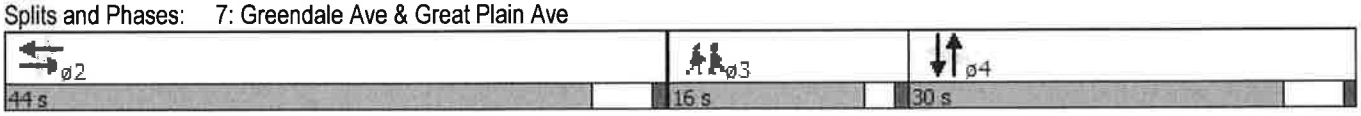
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	18%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.71
Intersection Signal Delay: 144.0
Intersection LOS: F
Intersection Capacity Utilization 123.1%
ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	858	943	544	285
v/c Ratio	1.71	0.97	0.94	0.85
Control Delay	347.9	41.3	50.6	47.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	347.9	41.3	50.6	47.8
Queue Length 50th (ft)	~597	367	236	113
Queue Length 95th (ft)	#599	#559	#382	#249
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	502	968	581	334
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.71	0.97	0.94	0.85

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	55	254	68	33	229	100	76	82	69	328	365	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	15	15	15	15	15	13	13	13	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976			0.963			0.959			0.976	
Flt Protected		0.993			0.995			0.984			0.981	
Satd. Flow (prot)	0	2006	0	0	2003	0	0	1853	0	0	1932	0
Flt Permitted		0.808			0.906			0.646			0.752	
Satd. Flow (perm)	0	1632	0	0	1823	0	0	1216	0	0	1481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			20			34			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		425			440			329			481	
Travel Time (s)		9.7			10.0			7.5			10.9	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.75	0.75	0.75	0.93	0.93	0.93
Heavy Vehicles (%)	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	60	279	75	37	254	111	101	109	92	353	392	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	414	0	0	402	0	0	302	0	0	903	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4			4		
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Total Split (s)	26.0	26.0		26.0	26.0		48.0	48.0		48.0	48.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%		53.3%	53.3%		53.3%	53.3%	
Maximum Green (s)	21.0	21.0		21.0	21.0		43.0	43.0		43.0	43.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lag	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Recall Mode	Min	Min		Min	Min		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		21.0			21.0			43.0			43.0	
Actuated g/C Ratio		0.28			0.28			0.58			0.58	
v/c Ratio		0.88			0.76			0.42			1.04	
Control Delay		47.1			33.9			9.7			60.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		47.1			33.9			9.7			60.3	
LOS		D			C			A			E	
Approach Delay		47.1			33.9			9.7			60.3	
Approach LOS		D			C			A			E	

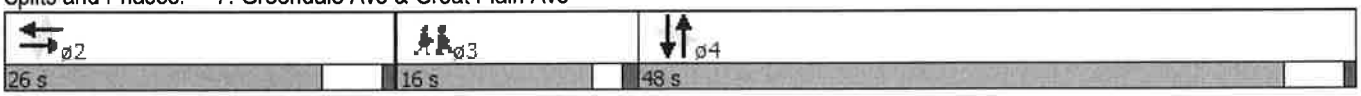
Intersection Summary

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Minimum Initial (s)	13.0
Minimum Split (s)	16.0
Total Split (s)	16.0
Total Split (%)	18%
Maximum Green (s)	13.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 74
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 44.8 Intersection LOS: D
Intersection Capacity Utilization 103.2% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: Greendale Ave & Great Plain Ave



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	414	402	302	903
v/c Ratio	0.88	0.76	0.42	1.04
Control Delay	47.1	33.9	9.7	60.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	47.1	33.9	9.7	60.3
Queue Length 50th (ft)	175	159	60	~454
Queue Length 95th (ft)	#335	#289	84	#674
Internal Link Dist (ft)	345	360	249	401
Turn Bay Length (ft)				
Base Capacity (vph)	471	531	720	867
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.88	0.76	0.42	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Greendale Avenue at the Project North Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	6	81	1207	1	20	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875					
Flt Protected	0.996					0.996
Satd. Flow (prot)	1656	0	2007	0	0	2000
Flt Permitted	0.996					0.996
Satd. Flow (perm)	1656	0	2007	0	0	2000
Link Speed (mph)	30		30			30
Link Distance (ft)	252		151			136
Travel Time (s)	5.7		3.4			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	7	88	1312	1	22	291
Shared Lane Traffic (%)						
Lane Group Flow (vph)	95	0	1313	0	0	313
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 75.6% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	81	1207	1	20	268
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	7	88	1312	1	22	291

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1648	1313	0	0	1313	0
Stage 1	1313	-	-	-	-	-
Stage 2	335	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	110	196	-	-	533	-
Stage 1	254	-	-	-	-	-
Stage 2	729	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	105	196	-	-	533	-
Mov Capacity-2 Maneuver	105	-	-	-	-	-
Stage 1	254	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	43.2	0	0.8
HCM LOS	E		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	185	533	-
HCM Lane V/C Ratio	-	-	0.511	0.041	-
HCM Control Delay (s)	-	-	43.2	12.041	0
HCM Lane LOS			E	B	A
HCM 95th %tile Q(veh)	-	-	2.558	0.127	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	3	43	281	5	80	1120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.873		0.998			
Flt Protected	0.997					0.997
Satd. Flow (prot)	1654	0	2003	0	0	2002
Flt Permitted	0.997					0.997
Satd. Flow (perm)	1654	0	2003	0	0	2002
Link Speed (mph)	30		30			30
Link Distance (ft)	266		153			136
Travel Time (s)	6.0		3.5			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	3	47	305	5	87	1217
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	0	310	0	0	1304
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 91.8% ICU Level of Service F
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	43	281	5	80	1120
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	3	47	305	5	87	1217

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1699	308	0	0	311	0
Stage 1	308	-	-	-	-	-
Stage 2	1391	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	103	737	-	-	1261	-
Stage 1	750	-	-	-	-	-
Stage 2	233	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	81	737	-	-	1261	-
Mov Capacity-2 Maneuver	81	-	-	-	-	-
Stage 1	750	-	-	-	-	-
Stage 2	183	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.5
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	482	1261	-
HCM Lane V/C Ratio	-	-	0.104	0.069	-
HCM Control Delay (s)	-	-	13.3	8.066	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	0.345	0.222	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	6	81	1151	1	20	184
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875					
Flt Protected	0.996					0.995
Satd. Flow (prot)	1656	0	2007	0	0	1999
Flt Permitted	0.996					0.995
Satd. Flow (perm)	1656	0	2007	0	0	1999
Link Speed (mph)	30		30			30
Link Distance (ft)	252		151			136
Travel Time (s)	5.7		3.4			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	7	88	1251	1	22	200
Shared Lane Traffic (%)						
Lane Group Flow (vph)	95	0	1252	0	0	222
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 72.6% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	81	1151	1	20	184
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	7	88	1251	1	22	200

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1495	1252	0	0	1252	0
Stage 1	1252	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	137	212	-	-	563	-
Stage 1	272	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	131	212	-	-	563	-
Mov Capacity-2 Maneuver	131	-	-	-	-	-
Stage 1	272	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.3	0	1.1
HCM LOS	E		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	203	563	-
HCM Lane V/C Ratio	-	-	0.466	0.039	-
HCM Control Delay (s)	-	-	37.3	11.651	0
HCM Lane LOS			E	B	A
HCM 95th %tile Q(veh)	-	-	2.245	0.12	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	3	43	225	5	80	870
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.873		0.997			
Flt Protected	0.997					0.996
Satd. Flow (prot)	1654	0	2001	0	0	2000
Flt Permitted	0.997					0.996
Satd. Flow (perm)	1654	0	2001	0	0	2000
Link Speed (mph)	30		30			30
Link Distance (ft)	266		153			136
Travel Time (s)	6.0		3.5			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	3	47	245	5	87	946
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	0	250	0	0	1033
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 75.7% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	43	225	5	80	870
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	3	47	245	5	87	946

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1367	247	0	0	250	0
Stage 1	247	-	-	-	-	-
Stage 2	1120	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	164	797	-	-	1327	-
Stage 1	799	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	141	797	-	-	1327	-
Mov Capacity-2 Maneuver	141	-	-	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	272	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.7
HCM LOS	B		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	611	1327	-
HCM Lane V/C Ratio	-	-	0.082	0.066	-
HCM Control Delay (s)	-	-	11.4	7.903	0
HCM Lane LOS			B	A	A
HCM 95th %tile Q(veh)	-	-	0.266	0.21	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Greendale Avenue at the Project South Driveway

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	16	5	1203	4	2	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.969					
Flt Protected	0.963					
Satd. Flow (prot)	1773	0	2007	0	0	2007
Flt Permitted	0.963					
Satd. Flow (perm)	1773	0	2007	0	0	2007
Link Speed (mph)	30		30			30
Link Distance (ft)	238		231			151
Travel Time (s)	5.4		5.3			3.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	17	5	1308	4	2	296
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	1312	0	0	298
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 73.6% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	16	5	1203	4	2	272
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	17	5	1308	4	2	296

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1610	1310	0	0	1312	0
Stage 1	1310	-	-	-	-	-
Stage 2	300	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	116	196	-	-	534	-
Stage 1	255	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	116	196	-	-	534	-
Mov Capacity-2 Maneuver	116	-	-	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	39.1	0	0.1
HCM LOS	E		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	128	534	-
HCM Lane V/C Ratio	-	-	0.178	0.004	-
HCM Control Delay (s)	-	-	39.1	11.769	0
HCM Lane LOS			E	B	A
HCM 95th %tile Q(veh)	-	-	0.622	0.012	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	3	283	16	6	1117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.969		0.993			
Flt Protected	0.963					
Satd. Flow (prot)	1773	0	1994	0	0	2007
Flt Permitted	0.963					
Satd. Flow (perm)	1773	0	1994	0	0	2007
Link Speed (mph)	30		30			30
Link Distance (ft)	254		230			153
Travel Time (s)	5.8		5.2			3.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	10	3	308	17	7	1214
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	325	0	0	1221
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 73.6% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	9	3	283	16	6	1117
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	10	3	308	17	7	1214

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1543	316	0	0	325	0
Stage 1	316	-	-	-	-	-
Stage 2	1227	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	128	729	-	-	1246	-
Stage 1	744	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	126	729	-	-	1246	-
Mov Capacity-2 Maneuver	126	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	275	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.7	0	0
HCM LOS	D		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	159	1246	-
HCM Lane V/C Ratio	-	-	0.082	0.005	-
HCM Control Delay (s)	-	-	29.7	7.904	0
HCM Lane LOS			D	A	A
HCM 95th %tile Q(veh)	-	-	0.264	0.016	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	16	5	1147	4	2	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.969					
Flt Protected	0.963					
Satd. Flow (prot)	1773	0	2007	0	0	2007
Flt Permitted	0.963					
Satd. Flow (perm)	1773	0	2007	0	0	2007
Link Speed (mph)	30		30			30
Link Distance (ft)	238		231			151
Travel Time (s)	5.4		5.3			3.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	17	5	1247	4	2	204
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	1251	0	0	206
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 70.6% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	16	5	1147	4	2	188
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	17	5	1247	4	2	204

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1458	1249	0	0	1251	0
Stage 1	1249	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	144	213	-	-	563	-
Stage 1	273	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	143	213	-	-	563	-
Mov Capacity-2 Maneuver	143	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	828	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	32.2	0	0.1
HCM LOS	D		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	155	563	-
HCM Lane V/C Ratio	-	-	0.147	0.004	-
HCM Control Delay (s)	-	-	32.2	11.419	0
HCM Lane LOS			D	B	A
HCM 95th %tile Q(veh)	-	-	0.503	0.012	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	3	227	16	6	867
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	14	14	14	14
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.969		0.991			
Flt Protected	0.963					
Satd. Flow (prot)	1773	0	1990	0	0	2007
Flt Permitted	0.963					
Satd. Flow (perm)	1773	0	1990	0	0	2007
Link Speed (mph)	30		30			30
Link Distance (ft)	254		230			153
Travel Time (s)	5.8		5.2			3.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	1%	0%	0%	1%
Adj. Flow (vph)	10	3	247	17	7	942
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	264	0	0	949
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.4%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	9	3	227	16	6	867
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	92	92	92	92	92	92
Heavy Vehicles, %	0	0	1	0	0	1
Mvmt Flow	10	3	247	17	7	942

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1210	255	0	0	264	0
Stage 1	255	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Follow-up Headway	3.5	3.3	-	-	2.2	-
Pot Capacity-1 Maneuver	204	789	-	-	1312	-
Stage 1	792	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Time blocked-Platoon, %			-	-		-
Mov Capacity-1 Maneuver	202	789	-	-	1312	-
Mov Capacity-2 Maneuver	202	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	373	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.1
HCM LOS	C		

Minor Lane / Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	248	1312	-
HCM Lane V/C Ratio	-	-	0.053	0.005	-
HCM Control Delay (s)	-	-	20.3	7.758	0
HCM Lane LOS			C	A	A
HCM 95th %tile Q(veh)	-	-	0.166	0.015	-

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

PRELIMINARY TRAFFIC SIGNAL WARRANTS ANALYSIS

Preliminary Traffic Signal Warrant Analysis
Needham Mews Residential Development

Greendale Ave at Bird St

	2013 Existing				2018 No-Build				2018 Build			
	Minor	Major	Warrant 2	Warrant 3	Minor	Major	Warrant 2	Warrant 3	Minor	Major	Warrant 2	Warrant 3
7:00	101	993	Yes	Yes	106	1044	Yes	Yes	106	1152	Yes	Yes
8:00	102	1370	Yes	Yes	107	1440	Yes	Yes	107	1548	Yes	Yes
4:00	38	1138	No	No	40	1196	No	No	40	1328	No	No
5:00	51	1290	No	No	54	1356	No	No	54	1488	No	No
Warrant Met?			No	Yes			No	Yes			No	Yes

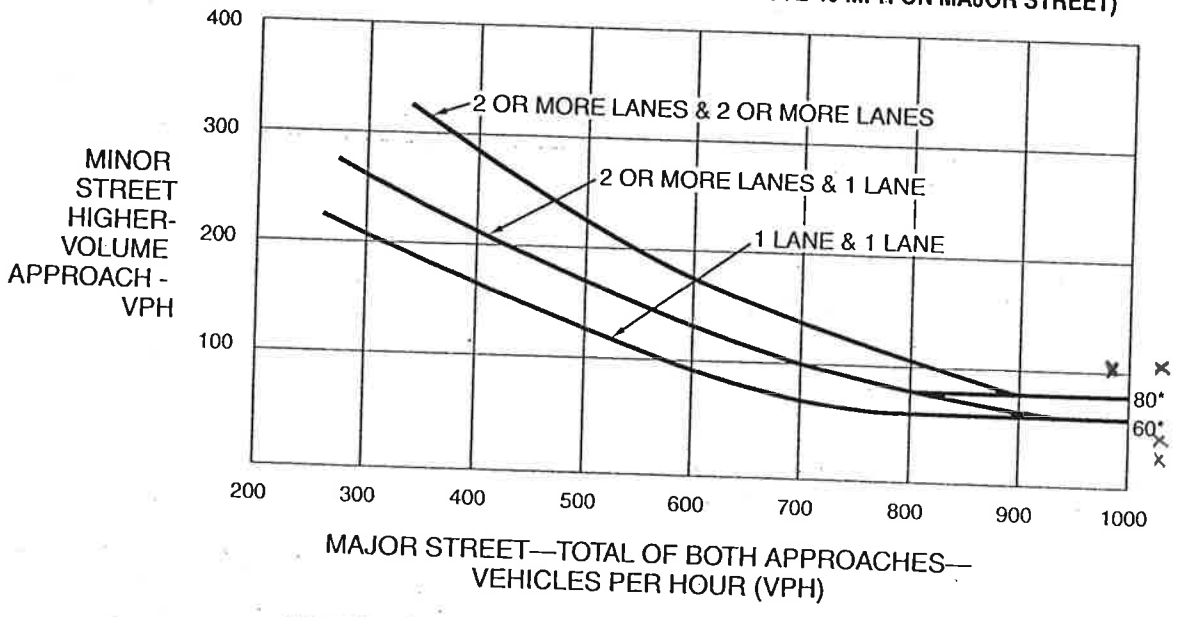
Greendale Ave at Brookline St

	2013 Existing				2018 No-Build				2018 Build			
	Minor	Major	Warrant 2	Warrant 3	Minor	Major	Warrant 2	Warrant 3	Minor	Major	Warrant 2	Warrant 3
7:00	204	1101	Yes	Yes	214	1157	Yes	Yes	214	1157	Yes	Yes
8:00	174	1471	Yes	Yes	183	1546	Yes	Yes	183	1546	Yes	Yes
4:00	84	1020	Yes	Yes	88	1072	Yes	Yes	88	1072	Yes	Yes
5:00	80	1160	Yes	Yes	84	1219	Yes	Yes	84	1219	Yes	Yes
Warrant Met?			Yes	Yes			Yes	Yes			Yes	Yes

Warrant 2 (Four-Hour) Lower threshold volume for minor street approach with one lane is 60 vph.
Warrant 3 (Peak-Hour) Lower threshold volume for minor street approach with one lane is 75 vph.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

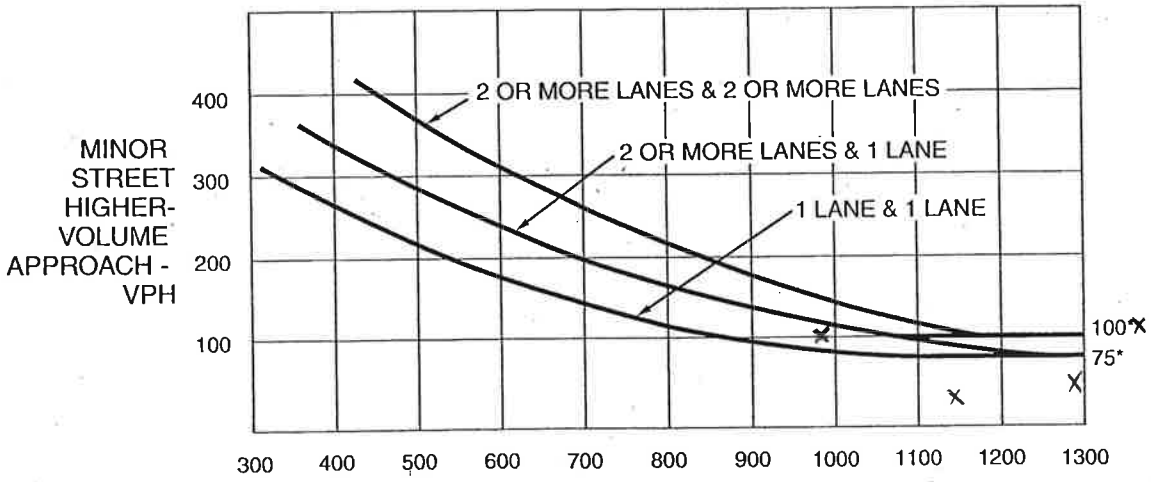


*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Greendale Ave at Bird Street

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

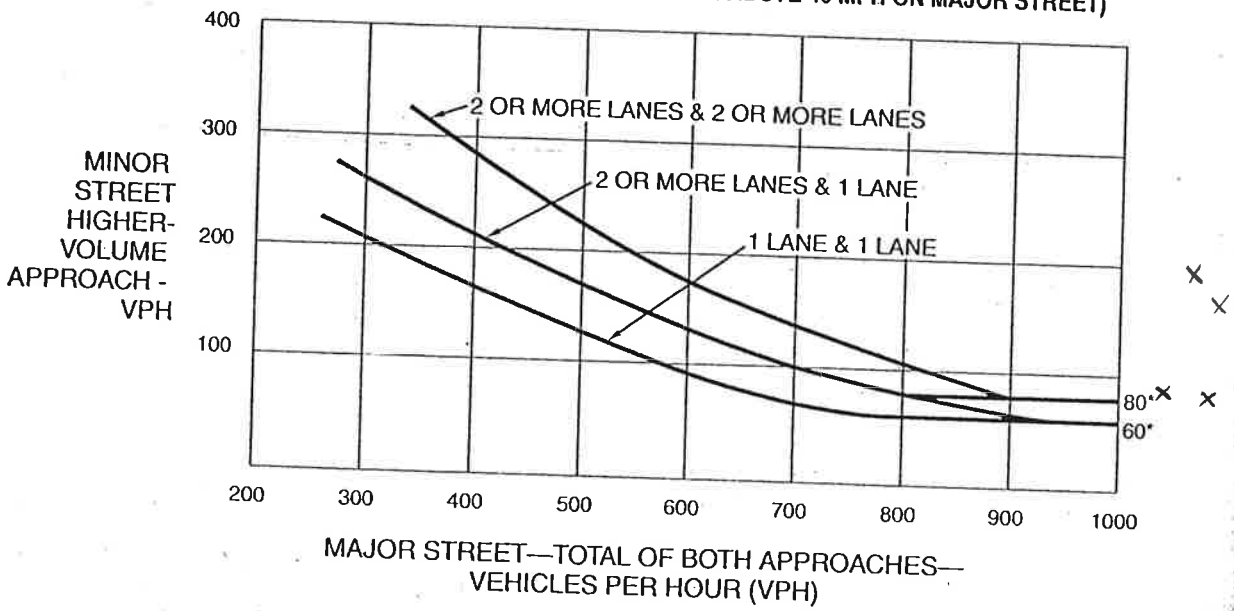
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



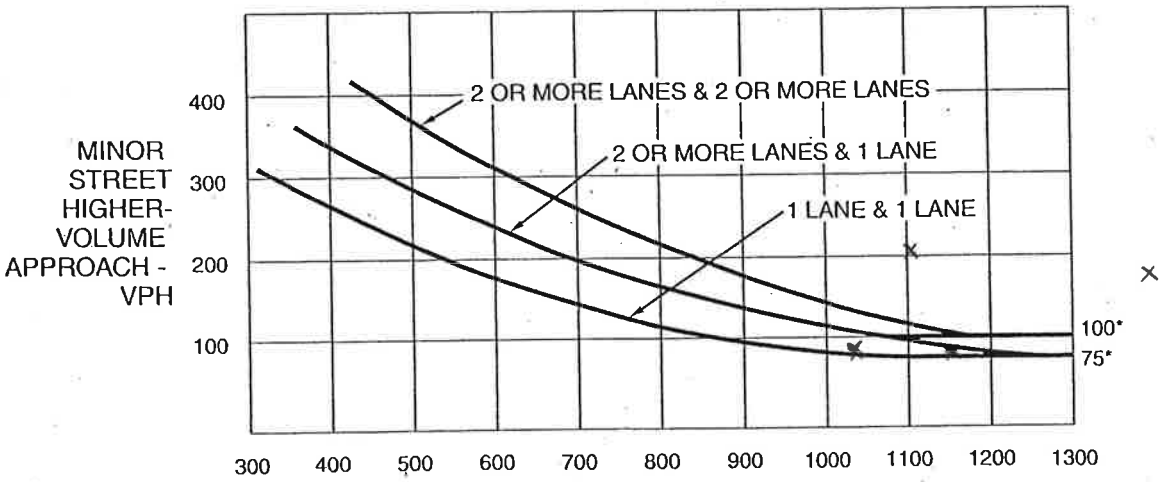
*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

Greendale Ave at Brookline St

D.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.