

3: CTH N (Freedom Rd.) & 41 SB ON/41 SB OFF Performance by movement

Movement	WBL	WBR	NBL	NBT	SBT	SBR	All
Total Delay (hr)	0.4	0.1	1.3	0.1	0.2	0.4	2.4
Total Del/Veh (s)	25.8	7.3	46.5	3.3	15.3	17.2	22.4
Speed Delay (hr)	0.4	0.0	1.3	0.1	0.2	0.4	2.4
Speed Del/Veh (s)	24.9	2.4	46.3	3.3	15.3	16.9	21.8
Total Stops	41	3	116	0	22	59	241
Travel Dist (mi)	7.7	5.2	10.3	7.1	8.4	11.8	50.4
Travel Time (hr)	0.6	0.2	1.7	0.3	0.5	0.8	4.1
Avg Speed (mph)	13	26	6	26	18	15	13
Fuel Used (gal)	0.3	0.2	0.6	0.4	0.5	0.6	2.6
HC Emissions (g)	2	1	2	11	6	4	26
CO Emissions (g)	139	81	118	398	293	246	1274
NOx Emissions (g)	8	4	10	34	20	18	95
Vehicles Entered	50	34	93	65	54	77	373
Vehicles Exited	47	34	100	63	53	76	373
Hourly Exit Rate	282	204	600	378	318	456	2238
Input Volume	263	200	512	434	353	464	2226
% of Volume	107	102	117	87	90	98	101
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

6: CTH N (Freedom Rd.) & 41 NB OFF/41 NB ON Performance by movement

Movement	EBL	EBR	NBT	NBR	SBL	SBT	All
Total Delay (hr)	0.2	0.2	0.8	0.1	0.0	0.1	1.5
Total Del/Veh (s)	26.7	10.0	23.4	4.9	8.4	3.1	13.0
Speed Delay (hr)	0.2	0.1	0.8	0.1	0.0	0.1	1.3
Speed Del/Veh (s)	24.5	4.2	23.2	4.9	8.4	3.1	11.7
Total Stops	27	23	91	15	10	0	166
Travel Dist (mi)	4.4	10.3	8.1	4.2	1.6	9.7	38.2
Travel Time (hr)	0.4	0.6	1.1	0.3	0.1	0.4	2.8
Avg Speed (mph)	12	22	8	16	18	26	15
Fuel Used (gal)	0.2	0.3	0.5	0.2	0.1	0.6	1.8
HC Emissions (g)	3	7	4	3	1	8	27
CO Emissions (g)	89	227	138	72	57	407	989
NOx Emissions (g)	9	19	15	9	3	29	84
Vehicles Entered	31	74	110	60	14	86	375
Vehicles Exited	32	78	118	63	13	88	392
Hourly Exit Rate	192	468	708	378	78	528	2352
Input Volume	246	382	690	330	120	491	2259
% of Volume	78	123	103	115	65	108	104
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	5	0	0	0	0	5

9: CTH N (Freedom Rd.) & Evergreen Dr. Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Total Delay (hr)	0.0	0.1	0.0	0.4	0.1	0.0	0.1	0.2	0.0	0.4	0.0	1.4
Total Del/Veh (s)	11.6	19.1	5.9	32.1	17.5	7.6	16.7	14.9	6.4	19.4	13.6	17.6
Speed Delay (hr)	0.0	0.1	0.0	0.4	0.1	0.0	0.1	0.2	0.0	0.4	0.0	1.4
Speed Del/Veh (s)	11.5	19.0	5.7	31.8	17.4	7.3	16.7	14.9	6.4	19.4	13.6	17.5
Total Stops	1	12	13	34	15	11	12	28	15	55	3	199
Travel Dist (mi)	0.6	3.8	2.8	6.1	3.6	2.1	2.7	8.1	3.4	3.9	0.1	37.3
Travel Time (hr)	0.0	0.2	0.1	0.5	0.2	0.1	0.2	0.5	0.2	0.5	0.0	2.5
Avg Speed (mph)	23	20	26	12	20	25	16	18	21	7	8	15
Fuel Used (gal)	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.3	0.1	0.2	0.0	1.5
HC Emissions (g)	0	1	0	4	1	1	1	5	1	0	0	15
CO Emissions (g)	15	86	26	200	102	40	44	208	74	22	1	818
NOx Emissions (g)	1	4	2	13	5	2	3	16	4	3	0	53
Vehicles Entered	3	20	15	36	22	13	18	53	23	78	3	284
Vehicles Exited	3	19	15	34	20	11	17	51	22	79	3	274
Hourly Exit Rate	18	114	90	204	120	66	102	306	132	474	18	1644
Input Volume	17	107	74	219	90	79	163	288	161	508	12	1733
% of Volume	106	107	122	93	133	84	63	106	82	93	150	95
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

12: CTH N (Freedom Rd.) & Moasis Dr. Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.5	0.3	0.2	1.2	0.5	0.2	0.1	0.2	0.0	0.2	0.1	0.0
Total Del/Veh (s)	207.4	315.7	289.6	366.2	343.0	16.6	15.2	5.9	3.5	19.0	3.7	2.2
Speed Delay (hr)	0.5	0.3	0.2	1.2	0.5	0.2	0.1	0.2	0.0	0.2	0.1	0.0
Speed Del/Veh (s)	207.3	315.6	289.5	366.1	342.9	16.4	15.2	5.9	3.5	18.1	3.6	2.2
Total Stops	9	3	3	11	5	52	14	6	0	33	11	0
Travel Dist (mi)	1.3	0.5	0.5	1.6	0.7	8.9	3.5	19.4	2.4	2.5	8.6	0.6
Travel Time (hr)	0.6	0.3	0.3	1.3	0.5	0.6	0.2	0.7	0.1	0.3	0.4	0.0
Avg Speed (mph)	2	2	2	1	1	14	18	27	25	8	21	18
Fuel Used (gal)	0.2	0.1	0.1	0.3	0.1	0.3	0.2	0.9	0.1	0.1	0.6	0.0
HC Emissions (g)	0	0	0	5	0	2	1	22	1	4	23	0
CO Emissions (g)	15	6	5	83	10	62	88	813	72	94	689	9
NOx Emissions (g)	1	0	0	7	1	8	6	66	4	10	63	1
Vehicles Entered	9	3	3	12	4	52	21	117	14	36	131	8
Vehicles Exited	0	1	1	1	1	51	21	117	14	38	133	8
Hourly Exit Rate	0	6	6	6	6	306	126	702	84	228	798	48
Input Volume	50	10	16	85	16	303	123	659	109	192	691	58
% of Volume	0	60	38	7	38	101	102	107	77	119	115	83
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	0	0	0	0	0	0	0

12: CTH N (Freedom Rd.) & Moasis Dr. Performance by movement

Movement	All
Total Delay (hr)	3.6
Total Del/Veh (s)	30.8
Speed Delay (hr)	3.6
Speed Del/Veh (s)	30.7
Total Stops	147
Travel Dist (mi)	50.5
Travel Time (hr)	5.3
Avg Speed (mph)	9
Fuel Used (gal)	3.1
HC Emissions (g)	59
CO Emissions (g)	1947
NOx Emissions (g)	166
Vehicles Entered	410
Vehicles Exited	386
Hourly Exit Rate	2316
Input Volume	2312
% of Volume	100
Denied Entry Before	0
Denied Entry After	1

17: CTH N (Freedom Rd.) Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.6	1.8	0.3	0.0	0.4	0.0
Total Del/Veh (s)	6.3	7.6	4.0	5.8	12.0	5.6	95.3	45.8	24.4	32.5	11.8	7.0
Speed Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.6	1.8	0.3	0.0	0.4	0.0
Speed Del/Veh (s)	6.2	7.5	3.9	5.7	11.9	5.5	94.9	45.4	23.8	32.5	11.8	6.6
Total Stops	10	4	6	5	12	9	39	175	47	3	56	12
Travel Dist (mi)	4.1	1.3	3.2	3.1	4.1	3.2	2.8	16.6	6.4	0.4	16.6	3.8
Travel Time (hr)	0.2	0.1	0.1	0.1	0.2	0.1	0.6	2.2	0.5	0.0	0.8	0.2
Avg Speed (mph)	22	21	22	24	21	23	4	8	12	11	21	22
Fuel Used (gal)	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.9	0.2	0.0	0.5	0.1
HC Emissions (g)	1	0	0	1	1	0	1	10	1	0	22	4
CO Emissions (g)	18	3	11	22	21	8	37	337	74	5	550	102
NOx Emissions (g)	2	1	1	2	2	1	3	29	5	0	57	11
Vehicles Entered	23	7	18	12	17	13	20	120	45	3	110	24
Vehicles Exited	22	7	17	12	16	13	17	116	42	3	108	23
Hourly Exit Rate	132	42	102	72	96	78	102	696	252	18	648	138
Input Volume	131	50	100	100	100	50	100	700	300	13	670	100
% of Volume	101	84	102	72	96	156	102	99	84	138	97	138
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	1	0	0	0

17: CTH N (Freedom Rd.) Performance by movement

Movement	All
Total Delay (hr)	3.3
Total Del/Veh (s)	26.8
Speed Delay (hr)	3.2
Speed Del/Veh (s)	26.6
Total Stops	378
Travel Dist (mi)	65.6
Travel Time (hr)	5.2
Avg Speed (mph)	13
Fuel Used (gal)	2.5
HC Emissions (g)	41
CO Emissions (g)	1188
NOx Emissions (g)	114
Vehicles Entered	412
Vehicles Exited	396
Hourly Exit Rate	2376
Input Volume	2414
% of Volume	98
Denied Entry Before	0
Denied Entry After	1

Total Network Performance

Total Delay (hr)	12.7
Total Del/Veh (s)	50.7
Speed Delay (hr)	12.5
Speed Del/Veh (s)	49.5
Total Stops	1142
Travel Dist (mi)	379.7
Travel Time (hr)	25.0
Avg Speed (mph)	15
Fuel Used (gal)	18.1
HC Emissions (g)	266
CO Emissions (g)	10144
NOx Emissions (g)	837
Vehicles Entered	784
Vehicles Exited	756
Hourly Exit Rate	4536
Input Volume	17093
% of Volume	27
Denied Entry Before	0
Denied Entry After	7

Queuing and Blocking Report

Baseline

2/1/2013

Intersection: 3: CTH N (Freedom Rd.) & 41 SB ON/41 SB OFF

Movement	WB	WB	WB	NB	SB	SB	SB
Directions Served	L	LT	R	L	T	T	R
Maximum Queue (ft)	96	94	40	372	77	210	100
Average Queue (ft)	72	63	15	292	50	162	99
95th Queue (ft)	105	100	46	394	85	241	101
Link Distance (ft)	823	823			765	765	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			120	550			75
Storage Blk Time (%)						0	35
Queuing Penalty (veh)						1	58

Intersection: 6: CTH N (Freedom Rd.) & 41 NB OFF/41 NB ON

Movement	EB	EB	EB	NB	NB	NB	SB
Directions Served	L	LT	R	T	T	R	L
Maximum Queue (ft)	66	85	91	331	164	100	64
Average Queue (ft)	45	58	69	216	111	68	30
95th Queue (ft)	69	84	90	326	206	129	58
Link Distance (ft)	730	730		320	320		
Upstream Blk Time (%)				2			
Queuing Penalty (veh)				10			
Storage Bay Dist (ft)			265			75	75
Storage Blk Time (%)					7	2	0
Queuing Penalty (veh)					23	6	0

Intersection: 9: CTH N (Freedom Rd.) & Evergreen Dr.

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	R	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	94	54	188	94	87	83	94	181
Average Queue (ft)	64	33	103	75	53	60	46	117
95th Queue (ft)	98	50	176	102	94	98	102	189
Link Distance (ft)	995	995	888	888	765	765	206	206
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Queuing and Blocking Report

Baseline

2/1/2013

Intersection: 12: CTH N (Freedom Rd.) & Moasis Dr.

Movement	EB	EB	WB	WB	NB	NB	NB	SB
Directions Served	L	TR	LT	R	L	T	TR	L
Maximum Queue (ft)	204	94	328	136	66	53	52	129
Average Queue (ft)	98	79	262	113	50	16	10	76
95th Queue (ft)	204	104	391	147	74	52	45	133
Link Distance (ft)	844	844	894	894		825	825	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)					55			145
Storage Blk Time (%)					6	2		0
Queuing Penalty (veh)					19	3		0

Intersection: 17: CTH N (Freedom Rd.)

Movement	EB	EB	WB	NB	NB	SB	SB
Directions Served	L	TR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	53	72	96	460	522	131	112
Average Queue (ft)	33	33	68	337	305	75	84
95th Queue (ft)	64	70	109	455	489	124	118
Link Distance (ft)	973	973	1290	748	748	825	825
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 120