PART II

APPENDIX IIB

TRANSPORTATION

APPENDIX IIB-1

TRANSPORTATION STUDY

Hawthorn Park Landfill Expansion

Transportation Study

November 2020

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Waste Management

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Executive Summary

Waste Management proposes to expand the Hawthorn Park Landfill, a Type IV municipal solid waste landfill facility located on the north side of Tanner Road, between Gessner Road and Sam Houston Parkway (Beltway 8) in Harris County, Texas. The proposed landfill expansion is planned to open in 2022 and will increase the active site life by approximately 46 years. Access to site will remain as it exists today: via an existing full-access driveway on the north side of Tanner Road.

Traffic Data

Traffic data was collected using the traffic data platform, *StreetLight*, due to the on-going COVID-19 pandemic. The COVID-19 pandemic has affected typical traffic patterns; therefore, historical traffic data from October 2019 was utilized and existing conditions are represented as "2019 Existing Conditions" even though the analysis was performed in 2020. At the time that traffic data was obtained for analysis, the month of October 2019 represented the most recent month without holiday traffic or school closures which would affect typical traffic patterns.

Capacity Analysis

Capacity Analysis was performed at the study intersections for 2019 Existing Conditions, 2068 Background Conditions and 2068 Projected Conditions using *Synchro 11*, a traffic modeling and capacity analysis software. "2068 Background Conditions" represent analysis of intersections and roadways in the year 2068 if the expansion of the Hawthorn Park Landfill does not occur. "2068 Projected Conditions" represent analysis of intersections and roadways including the expansion of the Hawthorn Park Landfill. Seconds of Delay for each approach at the study intersections were used to determine a Level of Service (LOS). Most signalized intersections and unsignalized approaches are projected to operate at an unacceptable LOS in 2019 Existing Conditions and/or 2068 Background Conditions, without the included site generated trips from the proposed Hawthorn Park Landfill expansion. Trips generated by the Hawthorn Park Landfill have a negligible effect on the surrounding intersections when compared to 2068 Background Conditions. For signalized intersection operations, less than 7 seconds of delay are added by landfill generated trips when compared to 2068 Background Conditions. The Hawthorn Landfill site generated trips do not contribute to a change from an acceptable LOS to an unacceptable LOS.

Roadway Capacity Analysis

Roadway capacity analysis was performed on roadways that will be used to access the site and access roadways within one mile of the landfill in accordance with the *Highway Capacity Manual (HCM)* for 2019 Existing Conditions, 2068 Background Conditions and 2068 Projected Conditions. Landfill vehicles represent 1.53% or less of the total vehicles on Tanner Road and 0.7% or less on all other analysis roadways. Most roadways are projected to operate at an unacceptable LOS in 2019 Existing Conditions and/or 2068 Background Conditions, without the included site generated trips from the proposed Hawthorn Park Landfill expansion. Trips generated by the Hawthorn Park Landfill have a negligible effect on the study roadways when compared to 2068 Background Conditions and do not contribute to a change from an acceptable LOS to an unacceptable LOS.

Conclusions

The traffic generated by the landfill operation is a very small percentage of the traffic on the study roadways within 1 mile of the site and does not contribute to unacceptable availability or adequacy of the area roadway network. There are no known weight restrictions in the proximity of the site other than the maximum legal weight limit of 80,000 lbs.

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Introduction

Waste Management proposes to expand the Hawthorn Park Landfill, a Type IV municipal solid waste landfill facility located on the north side of Tanner Road, between Gessner Road and Sam Houston Parkway (Beltway 8) in Harris County, Texas, as shown in **Figure 1**. The proposed landfill expansion is planned to open in 2022 and will increase the active site life by approximately 46 years. Access to the site will remain as it exists today: via an existing full-access driveway on the north side of Tanner Road approximately 1,100 feet east of the Beltway 8 (Sam Houston Parkway) Northbound Frontage Road.

The purpose of this study is to ensure the roadways that provide access to the landfill facility are adequate and possess appropriate design capacity to safely accommodate the additional volumes and weights of traffic generated or expected to be generated by this landfill facility during its active life.

The Hawthorn Park Landfill is currently permitted by the Texas Commission on Environmental Quality (TCEQ) under MSW Permit No. 2185A.

Figure 1 – Project Location

Existing Conditions

A site visit was conducted on June 29, 2020 to document the existing conditions of the study area roadways and site. Existing lane assignments and traffic control at the study area intersections can be found in **Appendix A**.

Intersections

The intersections included in the study area are:

- West Little York Road at Brittmoore Road
- West Little York Road at Beltway 8 Southbound Frontage Road
- West Little York Road at Beltway 8 Northbound Frontage Road
- West Little York Road at Hempstead Road
- Gessner Road at US 290 Westbound Frontage Road
- Gessner Road at US 290 Eastbound Frontage Road
- Gessner Road at Hempstead Road
- Tanner Road at Gessner Road
- Tanner Road at Landfill Driveway
- Tanner Road at Beltway 8 Northbound Frontage Road
- Tanner Road at Beltway 8 Southbound Frontage Road
- Tanner Road at Brittmoore Road
- Brittmoore Road at Brittmoore Park Drive

Traffic Data

Turning Movement Counts at study area intersections and 24-hour roadway volumes were collected on a typical weekday in October 2019 via the *StreetLight Data* platform. A typical weekday was defined as the average of mid-week dates (Tuesday, Wednesday and Thursday) in the month of October 2019. At the time that traffic data was obtained for analysis, the month of October 2019 represented the most recent month without holiday traffic or school closures which would affect typical traffic patterns. *StreetLight Data's* metrics utilize two different data sources: Location-Based Services (LBS) data, which is created by smartphone apps and Navigation-GPS data, which is created by connected cars and trucks as well as turn-by-turn navigation tools. The program utilizes location based cellular data refined with contextual data such as road network and land use data to determine traffic patterns and volumes on roadways and at intersections. Access to the data is provided by *StreetLight Data* platform which allows the user to create designated zones to be utilized by *StreetLight's* Origin-Destination Analysis which describes relative trip volumes between the designated zones. With Origin-Destination analysis, Turning Movement Counts and 24-hour volumes were collected in the project area. Peak Hours represent one hour in the AM and one hour in the PM during which the highest number of vehicles are using the study roadways and intersections; Peak Hours were identified as 7:00-8:00 AM for the AM Peak Hour and 4:00-5:00 PM for the PM Peak Hour.

The following 24-hour volume counts were collected via the *StreetLight Data* platform on a typical weekday in October 2019.

- Hempstead Road, north of West Little York
- Beltway 8 Northbound Frontage Road, north of West Little York
- Beltway 8 Southbound Frontage Road, north of West Little York
- Beltway 8 Northbound Frontage Road, south of West Little York
- Beltway 8 Southbound Frontage Road, south of West Little York
- West Little York, West of Beltway 8 Southbound Frontage Road
- West Little York, East of Beltway 8 Northbound Frontage Road
- West Little York, East of Hempstead Road
- US 290 Westbound Frontage Road, north of Gessner Road
- US 290 Eastbound Frontage Road, north of Gessner Road
- US 290 Westbound Frontage Road, south of Gessner Road
- US 290 Eastbound Frontage Road, south of Gessner Road
- Gessner Road, north of Hempstead Road
- Hempstead Road, north of Gessner Road
- Hempstead Road, south of Gessner Road
- Gessner Road, north of Tanner Road
- Gessner Road, south of Tanner Road
- Tanner Road, east of Gessner Road
- Tanner Road, east of Landfill Driveway
- Tanner Road, West of Landfill Driveway
- Beltway 8 Northbound Frontage Road, north of Tanner Road
- Beltway 8 Southbound Frontage Road, north of Tanner Road
- Beltway 8 Northbound Frontage Road, south of Tanner Road
- Beltway 8 Southbound Frontage Road, south of Tanner Road
- Tanner Road, West of Beltway 8 Southbound Frontage Road
- Tanner Road, West of Brittmoore Road
- Brittmoore Road, north of Tanner Road
- Brittmoore Road, south of Tanner Road

The existing traffic volumes can be found in **Appendix A** and raw traffic count data can be found in **Appendix B.**

Site Characteristics

The Hawthorn Park Landfill is a Type IV Municipal Solid Waste Landfill permitted by the Texas Commission on Environmental Quality (TCEQ) under MSW Permit No. 2185A. The facility accepts for disposal municipal solid waste consisting of construction/demolition debris, brush, non-putrescible rubbish wastes, and certain Class III industrial solid waste. The proposed expansion will increase the active site life by 46.3 years. A summary of hours of operation and site life are provided below:

a) Operating hours: Monday through Saturday 5 AM – 9 PM
    - Site monitoring, surveying, maintenance, and other activities not requiring heavy equipment operation may be performed 7 days per week, 24 hours per day
b) Waste acceptance hours: Monday through Saturday 6 AM – 7 PM
c) Estimated Site Life: 46.3 Years

Access to the site will remain as it exists today: via an existing full-access driveway on the north side of Tanner Road approximately 1,100 feet east of the Beltway 8 (Sam Houston Parkway) Northbound Frontage Road. Lane assignments are shown in **Appendix A**.

The initial waste acceptance rate for the proposed Hawthorn Park Landfill expansion will be 150,000 tons/year for Year 1 and 200,000 tons/year for Year 2. After Year 2, the waste acceptance rate is expected to stabilize to a 1.2% increase per year with an estimated max acceptance rate of 342,100 tons/year when the 46.3 active site life is reached.

Roadway System in Proximity to Site

A field study was conducted on June 29, 2020 to note existing roadway conditions and intersection geometrics for roadways which are used by vehicles accessing the landfill. Descriptions of the following area roadways within one mile of the landfill are provided:

- Tanner Road
- Gessner Road
- Beltway 8 (Sam Houston Parkway)
- Northwest Freeway (US 290)
- West Little York Road
- Brittmoore Road
- Brittmoore Park Drive
- Hempstead Road

Figure 2 shows the City of Houston Major Thoroughfare & Freeway Plan for the study area.

Tanner Road – Tanner Road is currently a two-lane asphalt-surfaced roadway consisting of 11-foot travel lanes in the vicinity of the site. Traffic volumes collected during the study on Tanner Road are listed in **Appendix B**. The Houston-Galveston Area Council (H-GAC) 2045 Regional Transportation Plan (RTP) and the City of Houston 2019 Major Thoroughfare & Freeway Plan (MTFP) were consulted regarding the future roadway upgrade plans for Tanner Road. Based on the information obtained from H-GAC, Tanner Road is proposed to be widened from two lanes to a four-lane divided roadway. Per the City of Houston Fiscal Year 2020-2024 Capital Improvement Plan (CIP), the Tanner Road Paving and Drainage project will be prioritized for construction as additional funding is identified in future CIPs; therefore, the completion date of the widening project is unknown. There are no known weight restrictions on Tanner Road in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.011).

Gessner Road – Gessner Road is currently a four-lane divided concrete-surfaced roadway consisting of 11-foot travel lanes and a 30-foot raised median in the vicinity of the site. Traffic volumes collected during the study on Gessner Road are listed in **Appendix B**. The H-GAC 2045 RTP and the City of Houston 2019 MTFP were consulted regarding the future roadway upgrade plans for Gessner Road. Based on the information obtained from the previously mentioned resources, a new Bus Rapid Transit busway from Belway 8 to Willowbrook Mall is proposed for the Fiscal Year 2040; no roadway widneing was identifed in conjunction with the proposed busway. There are no known weight restrictions on Gessner Road in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

Beltway 8 (Sam Houston Parkway) – Beltway 8 provides a concrete-surfaced frontage road system for the Sam Houston Tollway, a tolled controlled-access facility running in the median. Each one-way Beltway 8 Frontage Road provides three 14-foot travel lanes. Traffic volumes collected during the study on Beltway 8 frontage roads are listed in **Appendix B**. TxDOT, the Harris County Toll Road Athority (HCTRA), and the H-GAC 2045 RTP were consulted regarding future roadway upgrade plans for Beltway 8. Based on the information obtained from the previously mentioned resources, no improvements are planned along this roadway in the vicinity of the site. There are no known weight restrictions on Beltway 8 in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

Northwest Freeway (US 290) – US 290 is currently a ten-lane divided concrete-surfaced roadway consisting of 12-foot travel lanes and a 15-foot controlled-access HOV facility running in the median in the vicinity of the site. Northwest Freeway provides a concrete-surfaced frontage road system for US 290. Each one-way Northwest Freeway Frontage Road provides three 12-foot travel lanes. Traffic volumes collected during the study on US 290 frontage roads are listed in **Appendix B**. City of Houston 2019 MTFP and the H-GAC 2045 RTP were consulted regarding future roadway upgrade plans for US 290. Based on the information obtained from the previously mentioned resources, no improvements are planned along this roadway in the vicinity of the site. There are no known weight restrictions on Northwest Freeway in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

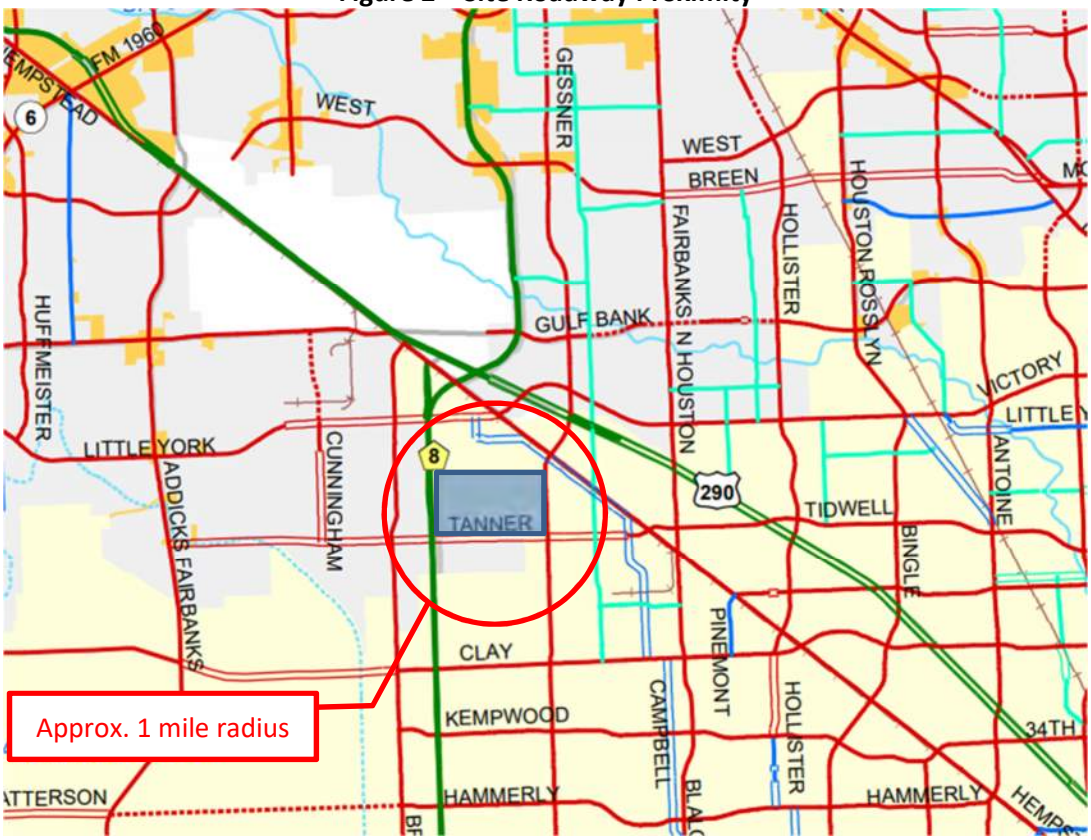
W Little York Road – West Little York Road is currently a four-lane concrete-surfaced roadway consisting of 12-foot travel lanes. In the vicinity of the site, W Little York has segments of roadways that include a four-lane divided roadway with raised median, a four-lane roadway with two-way left-turn lane or an undivided 4-lane roadway. Traffic volumes collected during the study on W Little York Road are listed in **Appendix B**.The H-GAC 2045 RTP and the City of Houston 2019 MTFP were consulted regarding the future roadway upgrade plans for West Little York Road. Based on the information obtained the previously mentioned resources, no improvements are planned along this roadway in the vicinity of the site. There are no known weight restrictions on W Little York Road in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

Brittmoore Road – Brittmoore Road is currently a five-lane concrete-surfaced roadway consisting of 12-foot travel lanes in the vicinity of the site. Traffic volumes collected during the study on Brittmoore Road are listed in **Appendix B**. The H-GAC 2045 RTP and the City of Houston 2019 MTFP were consulted regarding the future roadway upgrade plans for Brittmoore Road. Based on the information obtained from the previously mentioned resources, no improvements are planned along this roadway in the vicinity of the site. There are no known weight restrictions on Brittmoore Road in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

Brittmoore Park Drive – Brittmoore Park Drive is currently a two-lane concrete-surfaced roadway consisting of 12-foot travel lanes in the vicinity of the site. Traffic volumes collected during the study on Brittmoore Park Drive are listed in **Appendix B**. The H-GAC 2045 RTP and the City of Houston 2019 MTFP were consulted regarding the future roadway upgrade plans for Brittmoore Park Drive. Based on the information obtained from the previously mentioned resources, no improvements are planned along this roadway in the vicinity of the site. There are no known weight restrictions on Brittmoore Park Drive in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

Hempstead Road – Hempstead Road is currently a four-lane asphalt-surfaced roadway consisting of 10-foot travel lanes in the vicinity of the site. Traffic volumes collected during the study on Hempstead Road are listed in **Appendix B**. The H-GAC 2045 RTP and the City of Houston 2019 MTFP were consulted regarding the future roadway upgrade plans for Hempstead Road. Based on the information obtained from the previously mentioned resources, Hempstead Road is proposed to be reconstructed as a divided 4-lane raodway (future Hempstead Highway frontage roads) for the fiscal year 2028 and four managed lanes with two 2-lane frontage roads from Gessner Road to Jones Road for the fiscal year 2032; a timeline to compelte construction for these projects is unknown. There are no known weight restrictions on Hempstead Road in the proximity of the site other than the maximum legal weight limit of 80,000 lbs (Tex. Transportation Code Ann. §623.162).

Figure 2 – Site Roadway Proximity



Legend

Traffic Projections

Traffic projections were developed using the TxDOT Statewide Planning Map Future Traffic Projections for 2018 and 2038. The forecasted traffic data provided by TxDOT in the study area indicate the traffic growth at the study area is 1.7% per year from 2018-2038; therefore, it is recommended a 1.7% background growth rate per year be used. A summary of the data provided by the TxDOT Statewide Planning Map Future Traffic Projections are provided in **Table 1**

Table 1 – TxDOT Statewide Planning Map Future Traffic Projections

Road	2018 AADT	2038 Estimated AADT	Annual Linear Growth Rate
Tanner Road	19954	27936	1.70%
Tanner Road	10873	15222	1.70%
W Little York Road	35939	50315	1.70%
W Little York Road	27098	37936	1.70%
US 290 WBFR	8068	11295	1.70%
US 290 EBFR	9504	13306	1.70%
Brittmoore Road	15104	21146	1.70%
Brittmoore Road	15073	21100	1.70%
Beltway 8 SBFR	22472	31461	1.70%
Beltway 8 NBFR	22085	30919	1.70%
Beltway 8 SBFR	20678	28949	1.70%
Beltway 8 NBFR	22085	30919	1.70%
Gessner Road	17630	24682	1.70%
Gessner Road	17168	24035	1.70%
Average			**1.70%**

Trip Generation and Distribution

Waste Management provided daily site traffic for the approximate 46-year extension of the active site life based on Year 1 and Year 2 expected yearly gate waste receipts, working days per year and average tons/truck based on data provided by Fairbanks Landfill. Year 1 and 2 daily site traffic will be higher as waste vehicles begin utilizing the Hawthorn Park Landfill and the expected yearly gate waste receipts are higher. The yearly gate waste receipts are expected to stabilize after Year 2; after Year 2, the yearly gate waste receipts and the number of waste vehicles entering and exiting the facility is expected to increase at a rate of 1.2% annually. A 1.2% annual increase was determined from population growth in relation to the Hawthorn Park Landfill Facility.

Based on turning movement counts collected at the existing Fairbanks Landfill site driveway and waste receipts for Fairbanks Landfill provided on the same day of traffic data collection, 60% of landfill vehicles will be large commercial waste haul trucks and 40% of landfill vehicles will be smaller, private waste vehicles. This distribution of vehicles is expected to be the same for Hawthorn Park.

Fairbanks Landfill is a Type IV MSW landfill facility located approximately 3.5 miles northeast of the Hawthorn Facility, on Fairbanks North Houston Road. Average tons/truck and distribution of landfill vehicle types at Hawthorn Park Landfill are expected to be similar to Fairbanks Landfill.

The number of employees entering and exiting the facility is not dependent on yearly gate waste receipts and the number of vehicles that represent staff at the Hawthorn Park Landfill is expected to remain at 10 for the 46-year site life.

Table 2 provides a summary of the estimated site traffic. It was assumed that Year 1 represented 2022 and Year 46 represented the projected site life year, 2068.

Table 2 – Estimated Site Traffic

Year	Total Waste Vehicles	Large Waste Trucks	Small Waste Trucks/Vehicles	Total Employee Vehicles	Total
1	120	72	48	10	130
2	160	96	64	10	170
3	162	97	65	10	172
4	164	98	66	10	174
5	166	99	66	10	176
6	168	101	67	10	178
7	170	102	68	10	180
8	172	103	69	10	182
9	174	104	70	10	184
10	176	106	70	10	186
11	178	107	71	10	188
12	180	108	72	10	190
13	182	109	73	10	192
14	185	111	74	10	195
15	187	112	75	10	197
16	189	113	76	10	199
17	191	115	77	10	201
18	194	116	77	10	204
19	196	118	78	10	206
20	198	119	79	10	208
21	201	120	80	10	211
22	203	122	81	10	213
23	206	123	82	10	216
24	208	125	83	10	218
25	211	126	84	10	221
26	213	128	85	10	223
27	216	129	86	10	226
28	218	131	87	10	228
29	221	132	88	10	231
30	223	134	89	10	233
31	226	136	90	10	236
32	229	137	92	10	239
33	232	139	93	10	242
34	234	141	94	10	244
35	237	142	95	10	247
36	240	144	96	10	250
37	243	146	97	10	253
38	246	147	98	10	256
39	249	149	100	10	259
40	252	151	101	10	262
41	255	153	102	10	265
42	258	155	103	10	268
43	261	157	104	10	271
44	264	158	106	10	274
45	267	160	107	10	277
46	270	162	108	10	280

The traffic data collected at the Fairbanks Landfill site was used to determine the percentage of vehicles entering and exiting in the AM and PM Peak Hours. To analyze worst case conditions, all staff was expected to enter the facility in the AM Peak Hour and exit in the PM Peak Hour. No more than 10% of Landfill Trucks were observed to enter and exit the Fairbanks Landfill site in the AM and PM Peak Hours; therefore, trip generation was developed with 10% total daily waste vehicles entering and exiting in the AM and PM Peak Hours.

Table 3 provides a summary of the trip generation volumes utilized in the analysis of 2068 Projected Conditions.

Table 3 – 2068 Trip Generation Volumes

Vehicle Type	Total Daily Vehicles	AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
Large Waste Trucks	162	16	16	32	16	16	32
Smaller Waste Trucks	108	11	11	22	11	11	22
Employee Vehicles	10	10	0	10	0	10	10
Total	280	37	27	64	27	37	64

The directional distribution of vehicles traveling to/from the landfill, Trip Distribution Percentages, and Site Generated Traffic Volumes are shown in **Appendix A.**

The projected traffic volumes for 2068 Background Conditions and 2068 Projected Conditions are shown in **Appendix A.**

Capacity Analysis

Capacity Analysis was performed using the computer program *Synchro 11*, which is based on the procedures in the *Highway Capacity Manual (HCM).* Capacity Analysis provides information regarding traffic operations at an intersection and is expressed in terms of the level of service (LOS). The LOS indicates the average seconds of delay experienced by a motorist at a signalized intersection, at stop sign controlled approaches and left turn movements at an unsignalized intersection. Intersection LOS range from A to F, with LOS A representing free flow conditions and LOS F representing highly congested conditions. An intersection operating at or above LOS D is typically characterized by acceptable delays. The Level of Service Measurement and Qualitative Descriptions for Signalized and Unsignalized intersections are shown in **Table 4.**

Table 4 – Level of Service Measurement and Qualitative Descriptions

Level Of Service	Unsignalized	Signalized	
	Control Delay Per Vehicle (Sec)	Control Delay Per Vehicle (Sec)	Description
A	≤ 10	≤ 10	Good progression and short cycle lengths
B	> 10 and ≤ 15	> 10 and ≤ 20	Good progression or short cycle lengths, more vehicle stops
C	> 15 and ≤ 25	> 20 and ≤ 35	Fair progression and/or longer cycle lengths, some cycle failures
D	> 25 and ≤ 35	> 35 and ≤ 55	Congestion becomes noticeable, high volume to capacity ratio
E	> 35 and ≤ 50	> 55 and ≤ 80	Limit of acceptable delay, poor progression, long cycles, and/or high volume
F	> 50	> 80	Unacceptable to drivers, volume greater than capacity

The impact of the proposed development at the study area intersections was analyzed using Capacity Analysis for the following scenarios and the *Synchro 11* capacity analysis reports can be found in **Appendix C-E.**

2019 Existing Conditions

- Existing Traffic Volumes

2068 Background Conditions

- 1.7% percent annual background growth rate for 49 years

2068 Projected Conditions

- 1.7% percent annual background growth rate for 49 years
- Expected site life of Landfill reached

Table 5 summarizes the capacity analysis results for the AM and PM Peak Hour. Trips generated by the Hawthorn Park Landfill have a negligible effect on the surrounding intersections when compared to 2068 Background Conditions. For signalized intersection operations, less than 7 seconds of delay are added by landfill generated trips when compared to 2068 Background Conditions. The Hawthorn Landfill site generated trips do not contribute to a change from an acceptable LOS to an unacceptable LOS.

Table 5 – Capacity Analysis: AM and PM Peak Hour

Intersection	AM Peak Hour						PM Peak Hour					
	2019 Existing Conditions		2068 Background Conditions		2068 Projected Conditions		2019 Existing Conditions		2068 Background Conditions		2068 Projected Conditions	
	LOS	Sec. of Delay	LOS	Sec. of Delay	LOS	Sec. of Delay	LOS	Sec. of Delay	LOS	Sec. of Delay	LOS	Sec. of Delay
Signalized Intersections												
1. West Little York at Brittmoore Road	F	147.8	F	793.2	F	793.8	F	164.3	F	832.2	F	834.0
2. West Little York at Beltway 8 SBFR	F	571.8	F	2035.5	F	2036.5	F	298.8	F	1095.6	F	1096.2
3. West Little York at Beltway 8 NBFR	F	195.6	F	745.6	F	747.8	F	508.9	F	1630.8	F	1633.5
4. Hempstead Road at W Little York Road	F	170.1	F	858.6	F	858.3	F	166.3	F	689.6	F	689.5
5. Gessner Road at US 290 WBFR	F	107.1	F	561.8	F	562.7	F	267.2	F	1060.1	F	1060.8
6. Gessner Road at US 290 EBFR	F	819.1	F	2754.9	F	2755.1	F	309.9	F	1129.4	F	1130.7
7. Gessner Road at Hempstead Road	E	58.8	F	503.2	F	505.1	D	51.9	F	440.5	F	442.8
8. Tanner Road at Gessner Road	F	142.2	F	796.2	F	799.3	F	96.2	F	542.6	F	543.5
10. Tanner Road at Beltway 8 NBFR	D	46.1	F	461.3	F	466.1	F	133.5	F	788.3	F	795.2
11. Tanner Road at Beltway 8 SBFR	D	45.4	F	538.3	F	539.5	D	43.5	F	348.1	F	350.3
12. Tanner Road at Brittmoore Road	F	263.8	F	1407.8	F	1409.3	F	179.7	F	809.0	F	810.4
Unsignalized Intersections												
9. Tanner Road at Landfill Driveway												
Eastbound	A	0.1*	A	0.0*	A	0.2*	A	0.0*	A	0.0*	B	12.2*
Westbound	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
Southbound	B	12.0	C	24.7	F	ET	C	19.7	F	404.0	F	ET
13. Brittmoore Road at Brittmore Park Drive												
Eastbound	F	369.7	F	ET	F	ET	F	238.6	F	ET	F	ET
Northbound	C	20.0*	F	2427.4*	F	2432.8*	B	10.5*	F	253.6*	F	255.3*
Southbound	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0

*indicates left turn LOS

ET = Exceeds Threshold

Roadway Capacity Analysis

Roadway capacity analysis was performed on roadways that will be used to access the site and access roadways within one mile of the landfill in accordance with the *Highway Capacity Manual (HCM)* for 2019 Existing Conditions, 2068 Background Conditions and 2068 Projected Conditions. HCM LOS Measurement and Qualitative Descriptions are provided in **Table 6**. The volume to capacity ratio per lane was used to determine the LOS per link. The Existing, Background, and Projected Conditions data and LOS per link for the AM Peak Hour are shown in **Table 7**, and PM in **Table 8.**

Table 6 – HCM LOS Measurement and Qualitative Descriptions – Roadway Capacity Analysis

Level of Service	Roadway	
	Volume/Capacity Volume (Peak Hour Direction)/ Capacity (Per Lane Direction Capacity)	Description
A	0.00-0.19	Primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within traffic. Control delay at boundary intersections is minimal.
B	0.20-0.44	Reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at boundary intersections is not significant.
C	0.45-0.64	Stable operations. The ability to maneuver and change lanes at midsegment locations may be more restricted than LOS B. Longer queues at boundary intersections may contribute to lower travel speeds.
D	0.65-0.79	Less stable condition in which small increased in flow may cause substantial increase in delay and decreased in travel speed. This operation may be due to adverse signal progression, high volume or inappropriate signal timing at the boundary intersections.
E	0.80-0.99	Unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections.
F	1.00 or more	Flow at extremely low speeds. Congestion is likely occurring at the boundary locations, as indicated by high delay and extensive queuing.

Landfill vehicles represent 1.53% or less of the total vehicles on Tanner Road and 0.7% or less on all other analysis roadways. Most roadways are projected to operate at an unacceptable LOS in 2019 Existing Conditions and/or 2068 Background Conditions, without the included site generated trips from the proposed Hawthorn Park Landfill expansion. Trips generated by the Hawthorn Park Landfill have a negligible effect on the study roadways when compared to 2068 Background Conditions and do not contribute to a change from an acceptable LOS to an unacceptable LOS.

Table 7 – AM Peak Hour Roadway Capacity Analysis

Road	Node ID	Capacity per Lane (vehicles)	Direction	# of Lanes	2019 Existing Conditions			2068 Background Conditions			2068 Projected Conditions			% of Landfill Vehicles on Roadway
					Total Volume per Direction (vehicles)	Volume/ Capacity	LOS	Total Volume per Direction (vehicles)	Volume/ Capacity	LOS	Total Volume per Direction (vehicles)	Volume/ Capacity	LOS	
AM Peak Hour														
Brittmoore Road	A	700	NB	2	1532	1.09	F	3499	2.50	F	3500	2.50	F	0.02%
		700	SB	2	448	0.32	B	1023	0.73	D	1024	0.73	D	0.05%
Tanner Road	B	700	EB	2	2342	1.67	F	5350	3.82	F	5350	3.82	F	0.01%
		700	WB	2	618	0.44	B	1412	1.01	F	1412	1.01	F	0.02%
Brittmoore Road	C	700	NB	2	1492	1.07	F	3408	2.43	F	3409	2.44	F	0.02%
		700	SB	2	505	0.36	B	1154	0.82	E	1155	0.83	E	0.06%
Beltway 8	D	2000	NB	3	4574	0.76	D	10448	1.74	F	10457	1.74	F	0.09%
		2000	SB	3	2620	0.44	B	5985	1.00	E	5989	1.00	E	0.06%
	E	2000	NB	3	4644	0.77	D	10608	1.77	F	10617	1.77	F	0.09%
		2000	SB	3	2897	0.48	C	6617	1.10	F	6621	1.10	F	0.06%
Hempstead Road	F	700	NB	2	339	0.24	B	774	0.55	C	775	0.55	C	0.10%
		700	SB	2	669	0.48	C	1528	1.09	F	1529	1.09	F	0.07%
Hempstead Road	G	700	EB	2	1320	0.94	E	3015	2.15	F	3016	2.15	F	0.04%
		700	WB	2	441	0.32	B	1007	0.72	D	1008	0.72	D	0.08%
US 290	H	2000	EB	3	5000	0.83	E	11421	1.90	F	11423	1.90	F	0.02%
		2000	WB	3	1447	0.24	B	3305	0.55	C	3307	0.55	C	0.05%
	I	2000	EB	2	5271	1.32	F	12040	3.01	F	12042	3.01	F	0.01%
		2000	WB	2	1828	0.46	C	4175	1.04	F	4177	1.04	F	0.05%
Gessner Road	J	700	NB	2	1521	1.09	F	3474	2.48	F	3478	2.48	F	0.12%
		700	SB	2	801	0.57	C	1830	1.31	F	1836	1.31	F	0.30%
Hempstead Road	K	700	EB	2	1476	1.05	F	3371	2.41	F	3372	2.41	F	0.02%
		700	WB	2	1016	0.73	D	2321	1.66	F	2322	1.66	F	0.05%
Gessner Road	L	700	NB	2	1330	0.95	E	3038	2.17	F	3044	2.17	F	0.19%
		700	SB	2	609	0.44	B	1391	0.99	E	1399	1.00	E	0.56%
Tanner Road	M	700	EB	1	767	1.1	F	1752	2.50	F	1753	2.50	F	0.03%
		700	WB	1	426	0.61	C	973	1.39	F	974	1.39	F	0.08%
Gessner Road	N	700	NB	2	1362	0.97	E	3111	2.22	F	3112	2.22	F	0.02%
		700	SB	2	637	0.46	C	1455	1.04	F	1456	1.04	F	0.04%
Tanner Road	O	700	EB	1	927	1.32	F	2117	3.02	F	2124	3.03	F	0.32%
		700	WB	1	674	0.96	E	1540	2.20	F	1549	2.21	F	0.60%
Tanner Road	P	700	EB	1	1016	1.45	F	2321	3.32	F	2349	3.36	F	1.18%
		700	WB	1	638	0.91	E	1457	2.08	F	1477	2.11	F	1.37%
Beltway 8	Q	2000	NB	3	2475	0.41	B	5653	0.94	E	5662	0.94	E	0.17%
		2000	SB	3	1466	0.24	B	3349	0.56	C	3353	0.56	C	0.11%
	R	2000	NB	3	3465	0.58	C	7915	1.32	F	7937	1.32	F	0.28%
		2000	SB	3	1716	0.29	B	3920	0.65	D	3929	0.65	D	0.24%
Tanner Road	S	700	EB	2	2327	1.66	F	5315	3.80	F	5317	3.80	F	0.03%
		700	WB	2	766	0.55	C	1750	1.25	F	1751	1.25	F	0.08%

Table 8 – PM Peak Hour Roadway Capacity Analysis

Road	Node ID	Capacity per Lane (vehicles)	Direction	# of Lanes	2019 Existing Conditions			2068 Background Conditions			2068 Projected Conditions			% of Landfill Vehicles on Roadway
					Total Volume per Direction (vehicles)	Volume/ Capacity	LOS	Total Volume per Direction (vehicles)	Volume/ Capacity	LOS	Total Volume per Direction (vehicles)	Volume/ Capacity	LOS	
PM Peak Hour														
Brittmoore Road	A	700	NB	2	519	0.37	B	1185	0.85	E	1186	0.85	E	0.05%
		700	SB	2	1648	1.18	F	3764	2.69	F	3765	2.69	F	0.02%
Tanner Road	B	700	EB	2	718	0.51	C	1640	1.17	F	1640	1.17	F	0.02%
		700	WB	2	1807	1.29	F	4127	2.95	F	4127	2.95	F	0.01%
Brittmoore Road	C	700	NB	2	562	0.40	B	1284	0.92	E	1285	0.92	E	0.06%
		700	SB	2	1521	1.09	F	3474	2.48	F	3475	2.48	F	0.02%
Beltway 8	D	2000	NB	3	3100	0.52	C	7081	1.18	F	7094	1.18	F	0.18%
		2000	SB	3	4743	0.79	D	10834	1.81	F	10837	1.81	F	0.02%
	E	2000	NB	3	3053	0.51	C	6974	1.16	F	6987	1.16	F	0.19%
		2000	SB	3	4536	0.76	D	10361	1.73	F	10364	1.73	F	0.03%
Hempstead Road	F	700	NB	2	669	0.48	C	1528	1.09	F	1529	1.09	F	0.07%
		700	SB	2	1654	1.18	F	3778	2.70	F	3779	2.70	F	0.02%
Hempstead Road	G	700	EB	2	498	0.36	B	1138	0.81	E	1139	0.81	E	0.07%
		700	WB	2	1729	1.24	F	3949	2.82	F	3950	2.82	F	0.03%
US 290	H	2000	EB	3	2574	0.43	B	5879	0.98	E	5881	0.98	E	0.03%
		2000	WB	3	3099	0.52	C	7079	1.18	F	7081	1.18	F	0.03%
	I	2000	EB	2	2589	0.65	D	5914	1.48	F	5916	1.48	F	0.04%
		2000	WB	2	3175	0.79	D	7252	1.81	F	7254	1.81	F	0.02%
Gessner Road	J	700	NB	2	801	0.57	C	1830	1.31	F	1836	1.31	F	0.30%
		700	SB	2	1416	1.01	F	3234	2.31	F	3238	2.31	F	0.13%
Hempstead Road	K	700	EB	2	649	0.46	C	1482	1.06	F	1483	1.06	F	0.07%
		700	WB	2	2296	1.64	F	5244	3.75	F	5245	3.75	F	0.02%
Gessner Road	L	700	NB	2	880	0.63	C	2010	1.44	F	2018	1.44	F	0.39%
		700	SB	2	985	0.70	D	2250	1.61	F	2256	1.61	F	0.25%
Tanner Road	M	700	EB	1	424	0.61	C	968	1.38	F	969	1.38	F	0.08%
		700	WB	1	762	1.09	F	1741	2.49	F	1742	2.49	F	0.03%
Gessner Road	N	700	NB	2	870	0.62	C	1987	1.42	F	1988	1.42	F	0.03%
		700	SB	2	1055	0.75	D	2410	1.72	F	2411	1.72	F	0.03%
Tanner Road	O	700	EB	1	573	0.82	E	1309	1.87	F	1318	1.88	F	0.70%
		700	WB	1	1078	1.54	F	2462	3.52	F	2469	3.53	F	0.27%
Tanner Road	P	700	EB	1	570	0.81	E	1302	1.86	F	1322	1.89	F	1.53%
		700	WB	1	1183	1.69	F	2702	3.86	F	2730	3.90	F	1.02%
Beltway 8	Q	2000	NB	3	1847	0.31	B	4219	0.70	D	4232	0.71	D	0.31%
		2000	SB	3	2314	0.39	B	5286	0.88	E	5289	0.88	E	0.05%
	R	2000	NB	3	1844	0.31	B	4212	0.70	D	4228	0.70	D	0.38%
		2000	SB	3	2986	0.50	C	6821	1.14	F	6834	1.14	F	0.19%
Tanner Road	S	700	EB	2	875	0.63	C	1999	1.43	F	2000	1.43	F	0.07%
		700	WB	2	1646	1.18	F	3760	2.69	F	3762	2.69	F	0.05%

Summary and Conclusions

Waste Management proposes to expand the Hawthorn Park Landfill, a Type IV municipal solid waste landfill facility located on the north side of Tanner Road, between Gessner Road and Sam Houston Parkway (Beltway 8) in Harris County, Texas. The proposed landfill expansion is planned to open in 2022 and will increase the active site life by approximately 46 years. Access to the site will remain as it exists today: via an existing full-access driveway on the north side of Tanner Road approximately 1,100 feet east of the Beltway 8 (Sam Houston Parkway) Northbound Frontage Road.

Capacity Analysis

Capacity Analysis was performed at the study intersections for 2019 Existing Conditions, 2068 Background Conditions and 2068 Projected Conditions. Seconds of Delay for each approach at the study intersections were used to determine a Level of Service (LOS). Most signalized and unsignalized approaches are projected to operate at an unacceptable LOS in 2019 Existing Conditions and 2068 Background Conditions, without the included site generated trips from the proposed Hawthorn Park Landfill expansion. Trips generated by the Hawthorn Park Landfill have a negligible effect on the surrounding intersections when compared to 2068 Background Conditions. For signalized intersection operations, less than 7 seconds of delay are added by landfill generated trips when compared to 2068 Background Conditions. The Hawthorn Landfill site generated trips do not contribute to a change from an acceptable LOS to an unacceptable LOS.

Roadway Capacity Analysis

Roadway capacity analysis was performed on roadways that will be used to access the site and access roadways within one mile of the landfill in accordance with the *Highway Capacity Manual (HCM)* for 2019 Existing Conditions, 2068 Background Conditions and 2068 Projected Conditions. Landfill vehicles represent 1.53% or less of the total vehicles on Tanner Road and 0.7% or less on all other analysis roadways. Most roadways are projected to operate at an unacceptable LOS in 2019 Existing Conditions and/or 2068 Background Conditions, without the included site generated trips from the proposed Hawthorn Park Landfill expansion. Trips generated by the Hawthorn Park Landfill have a negligible effect on the study roadways when compared to 2068 Background Conditions and do not contribute to a change from an acceptable LOS to an unacceptable LOS.

Conclusions

The traffic analysis has provided data on the following:

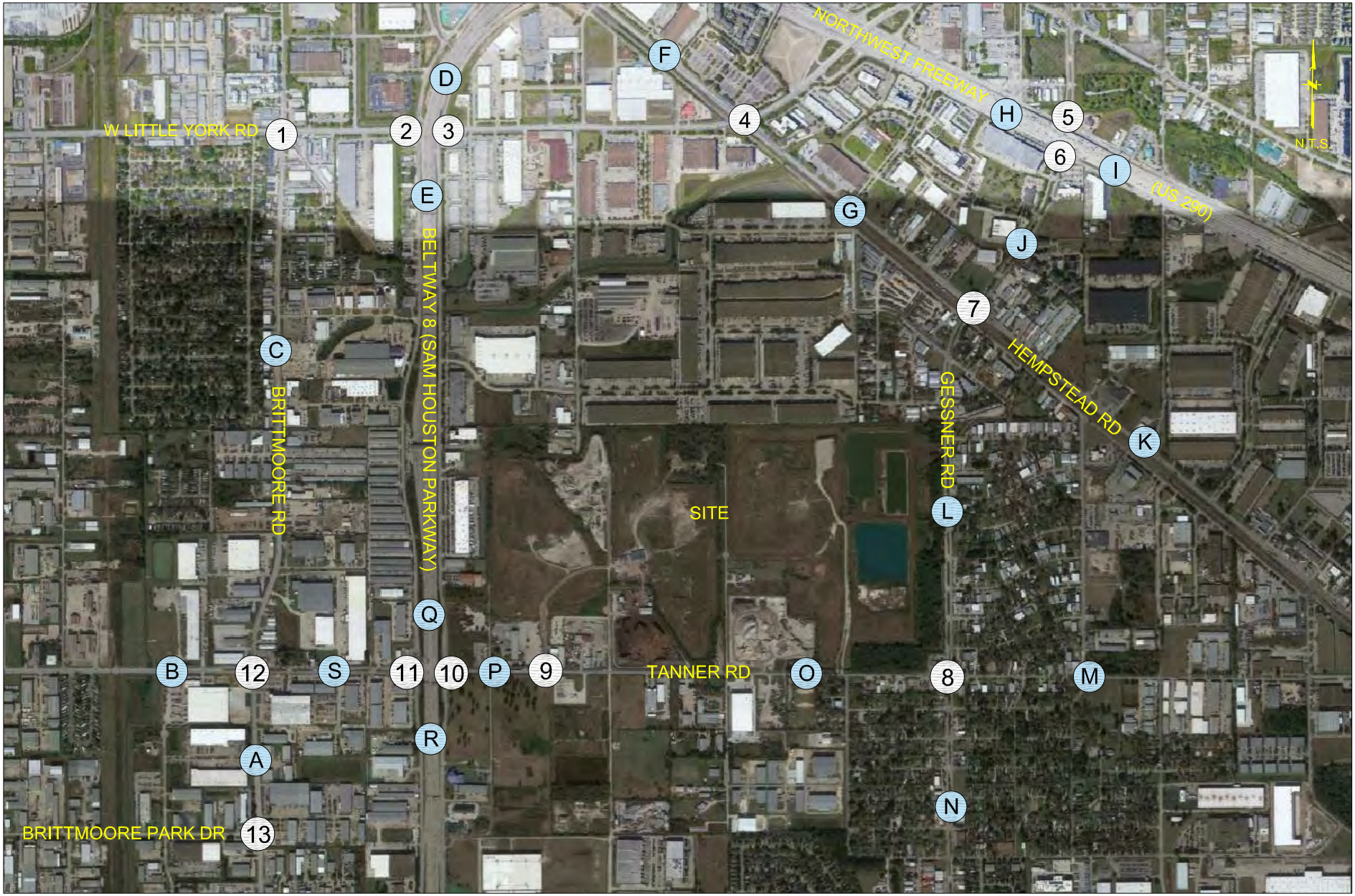
1. The availability and adequacy of roads that the owner or operator will use to access the site;
2. The volume of vehicular traffic on access roads within one mile of the proposed facility, both existing and expected, during the expected life of the proposed facility;
3. Projections of the volume of traffic expected to be generated by the facility on the access roads within one mile of the proposed facility; and
4. Documentation of coordination with the agency exercising maintenance responsibility of the public roadways involved, as necessary, and documentation of coordination with the Texas Department of Transportation will be provided in the TCEQ-20719 Form.

Based on this analysis, it is concluded that the traffic generated by the landfill operation is a very small percentage of the traffic on the study roadways within 1 mile of the site and does not contribute to unacceptable availability or adequacy of the area roadway network. There are no known weight restrictions in the proximity of the site other than the maximum legal weight limit of 80,000 lbs.

Appendix

Contents

Appendix A
Lane Assignment and Volume Figures



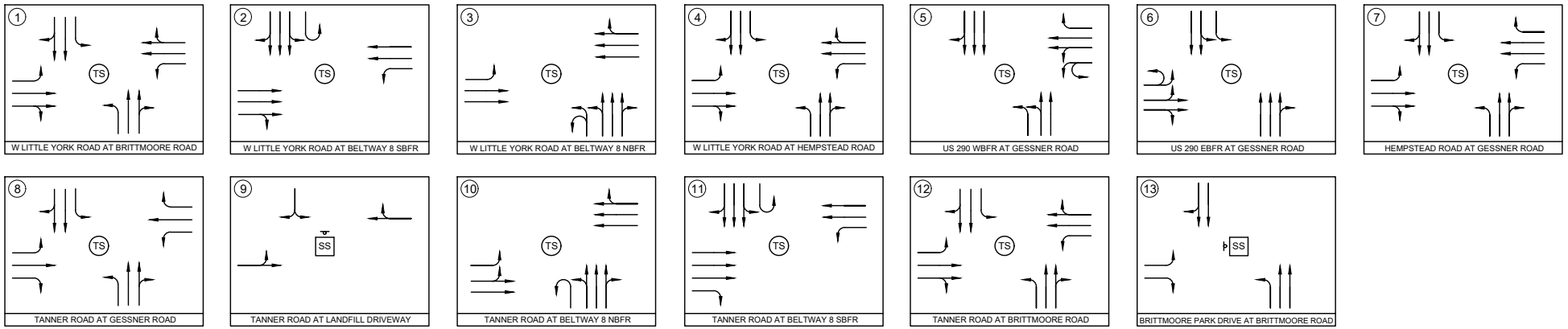
LEGEND

(#) INTERSECTION NODE

(X) VEHICLE VOLUME NODE

NODE IDENTIFICATION FIGURE

JONES|CARTER



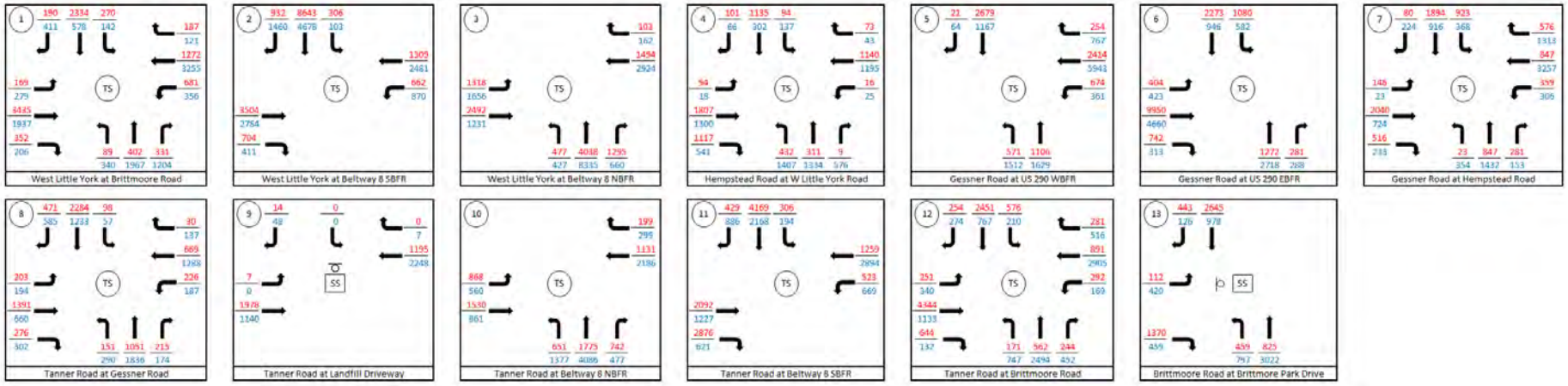
LEGEND

LANE ASSIGNMENT

TS TRAFFIC SIGNAL SS STOP SIGN

2019 EXISTING LANE ASSIGNMENTS

JONES|CARTER



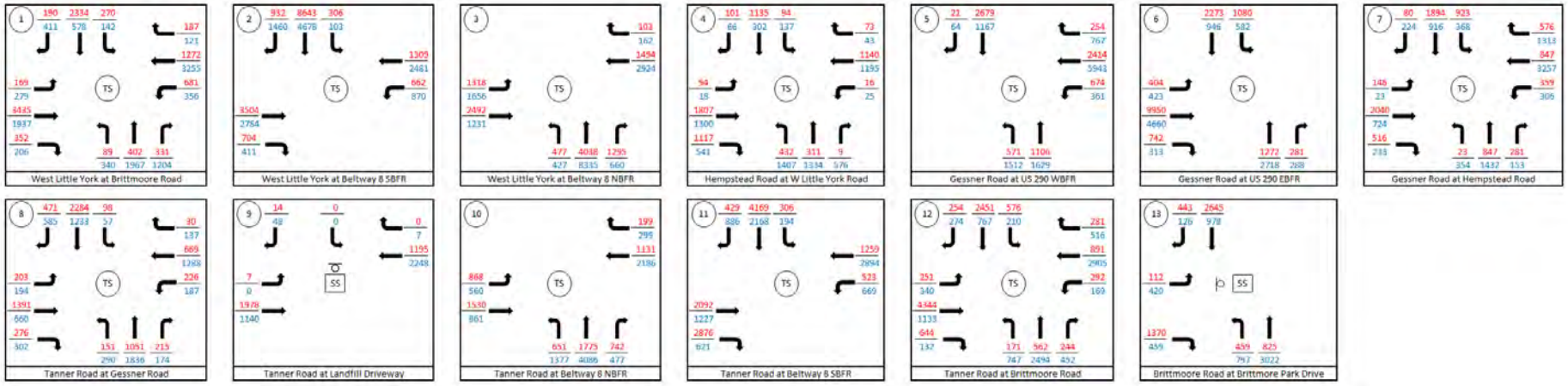
LEGEND

XXXX AM PEAK HOUR VOLUME

XXXX PM PEAK HOUR VOLUME

TS TRAFFIC SIGNAL SS STOP SIGN

2019 EXISTING VEHICLE VOLUMES



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XXXX PM PEAK HOUR VOLUME

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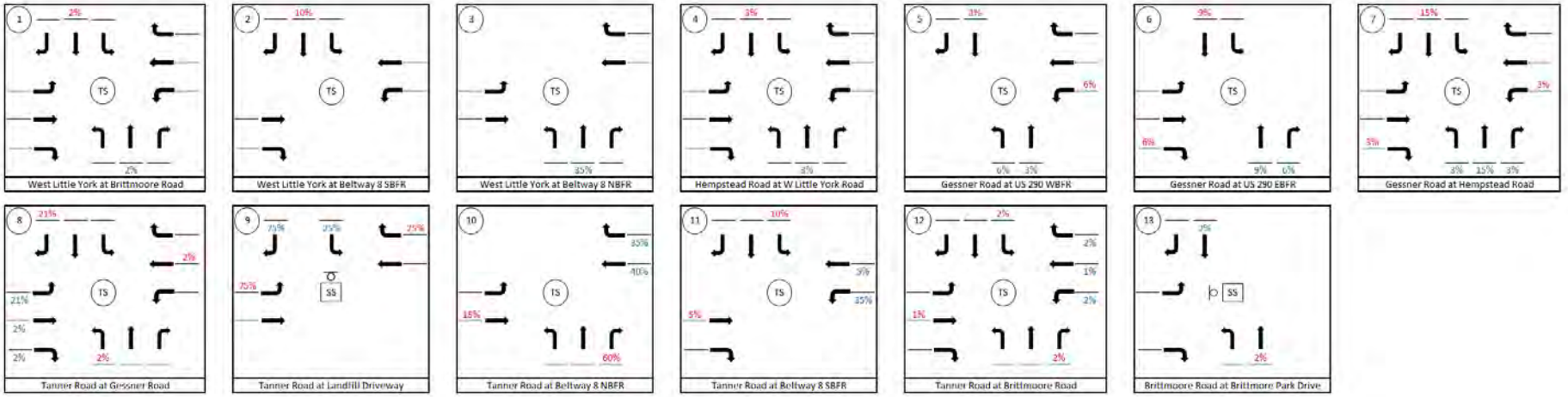
2068 BACKGROUND VEHICLE VOLUMES



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XXXX INBOUND PERCENTAGE

XXXX OUTBOUND PERCENTAGE

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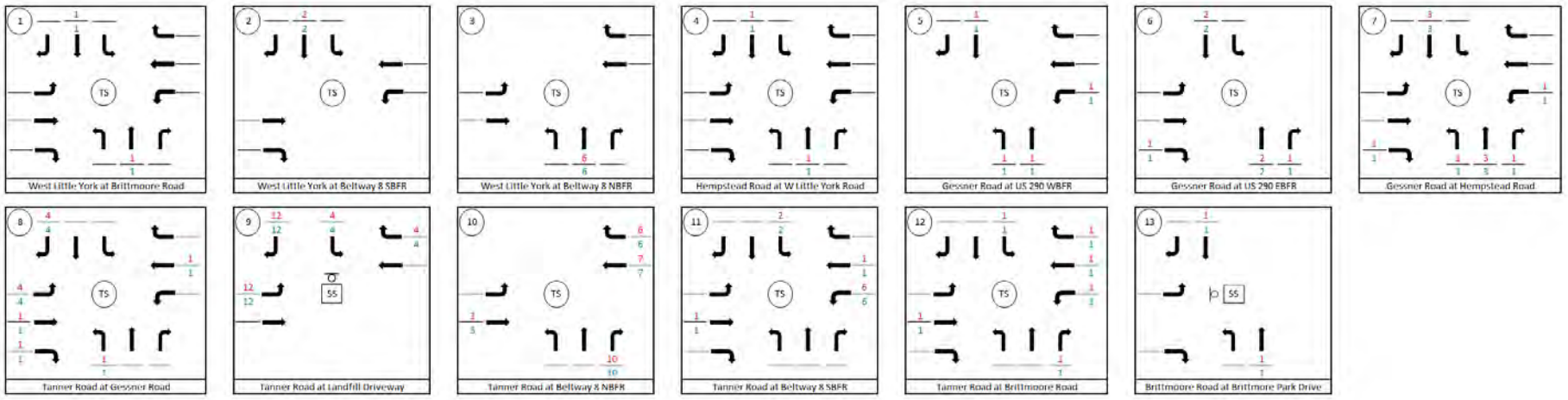
TRIP DISTRIBUTION



LEGEND

XXXX AM PEAK HOUR VOLUME

XXXX PM PEAK HOUR VOLUME

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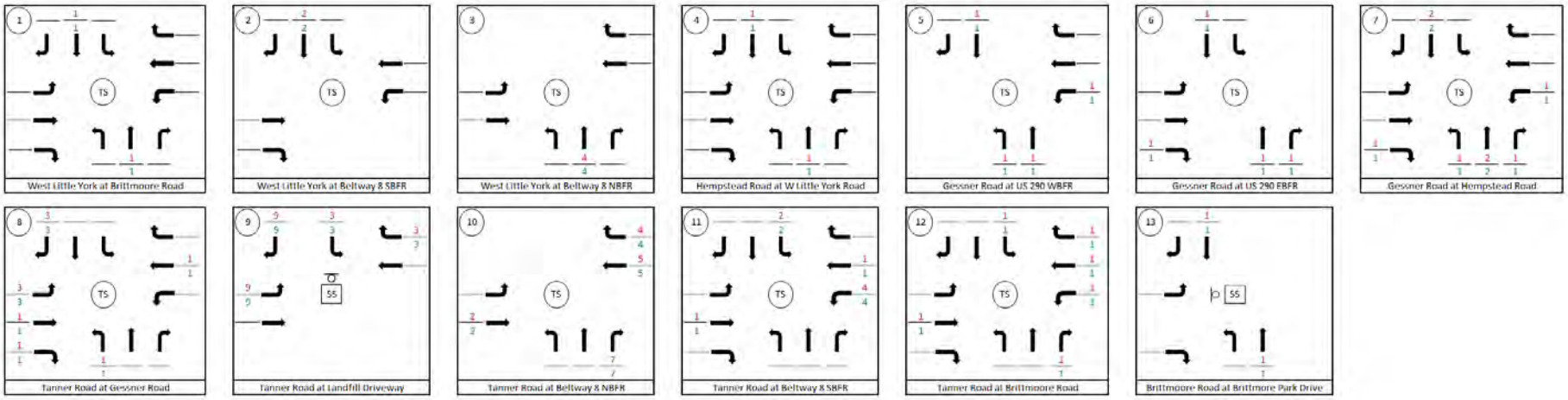
2068 SITE GENERATED VOLUMES - LARGE WASTE TRUCKS



LEGEND

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XXXX PM PEAK HOUR VOLUME

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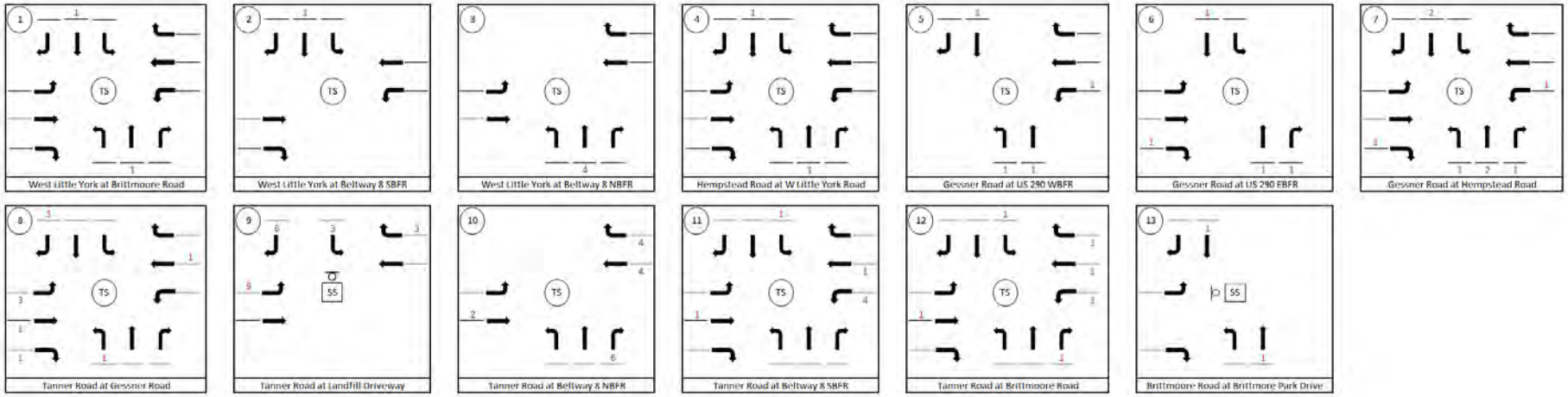
2068 SITE GENERATED VOLUMES - SMALL WASTE TRUCKS



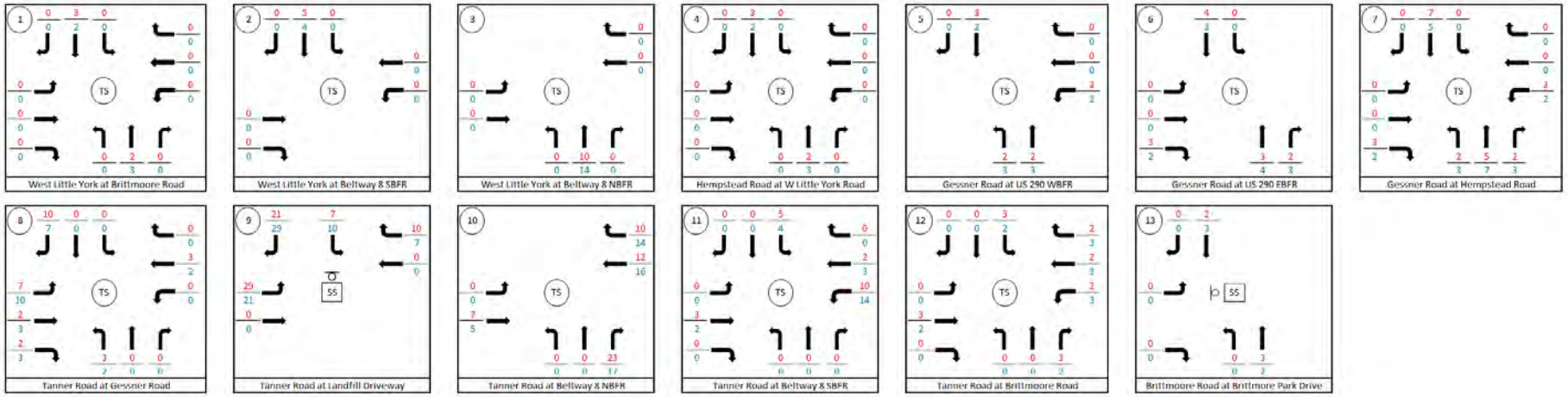
LEGEND

XXXX AM PEAK HOUR VOLUME

XXXX PM PEAK HOUR VOLUME

(TS) TRAFFIC SIGNAL [SS] STOP SIGN

2068 SITE GENERATED VOLUMES - EMPLOYEE VEHICLES



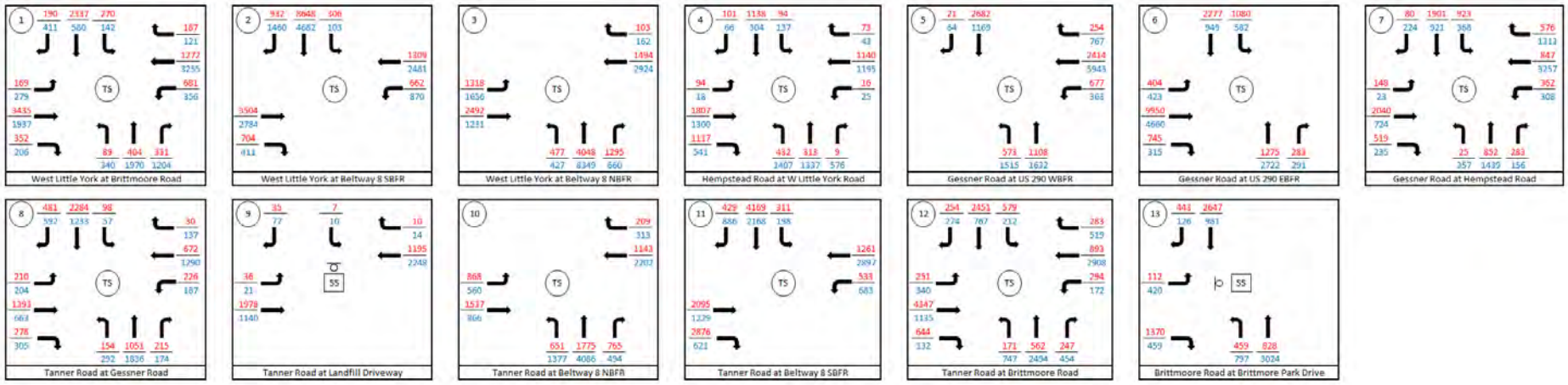
LEGEND

XXXX AM PEAK HOUR VOLUME

XXXX PM PEAK HOUR VOLUME

(TS) TRAFFIC SIGNAL [SS] STOP SIGN

2068 SITE GENERATED VOLUMES - ALL VEHICLES



LEGEND

XXXX AM PEAK HOUR VOLUME

XXXX PM PEAK HOUR VOLUME

TS TRAFFIC SIGNAL SS STOP SIGN

2068 PROJECTED VEHICLE VOLUMES

Appendix B
Traffic Counts

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	W Little York (West Leg)			W Little York (East Leg)			Brittmoore Rd (South Leg)			Brittmoore Rd (North Leg)			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	926	13,191	1,258	2,777	12,240	1,029	1,471	4,290	3,733	1,097	5,211	1,379	48,602
01: 12am (12am-1am)	-	56	11	7	69	4	7	13	25	2	11	6	211
02: 1am (1am-2am)	-	49	3	4	73	4	2	5	37	3	18	30	228
03: 2am (2am-3am)	-	54	1	8	54	4	2	7	9	9	2	7	157
04: 3am (3am-4am)	4	146	7	7	27	8	-	-	26	5	14	9	253
05: 4am (4am-5am)	7	140	20	66	159	12	1	29	33	12	34	73	586
06: 5am (5am-6am)	27	674	51	158	241	24	4	54	92	25	218	48	1,616
07: 6am (6am-7am)	36	1,267	86	210	454	37	118	88	155	73	646	96	3,266
08: 7am (7am-8am)	74	1,504	154	298	557	82	39	176	145	118	1,022	83	4,252
09: 8am (8am-9am)	50	1,318	171	204	495	92	38	151	139	151	801	82	3,692
10: 9am (9am-10am)	49	849	75	168	424	57	54	143	151	71	283	54	2,378
11: 10am (10am-11am)	32	660	63	143	444	80	60	150	136	76	196	71	2,111
12: 11am (11am-12noon)	51	611	78	174	571	70	79	204	192	101	198	79	2,408
13: 12pm (12noon-1pm)	70	684	139	164	600	77	143	213	191	70	213	74	2,638
14: 1pm (1pm-2pm)	34	596	62	155	631	61	59	170	179	46	205	54	2,252
15: 2pm (2pm-3pm)	74	648	38	178	732	51	74	253	299	62	240	65	2,714
16: 3pm (3pm-4pm)	107	766	47	141	882	77	104	425	337	86	263	105	3,340
17: 4pm (4pm-5pm)	122	848	90	156	1,425	53	149	861	527	62	253	180	4,726
18: 5pm (5pm-6pm)	104	704	90	116	1,338	55	189	719	440	62	256	101	4,174
19: 6pm (6pm-7pm)	50	599	36	86	998	50	121	343	205	29	156	63	2,736
20: 7pm (7pm-8pm)	9	378	13	81	761	29	65	100	114	19	108	59	1,736
21: 8pm (8pm-9pm)	16	293	4	62	551	31	57	97	82	10	40	16	1,259
22: 9pm (9pm-10pm)	20	188	24	35	443	24	54	56	79	7	39	5	974
23: 10pm (10pm-11pm)	1	121	4	38	240	13	37	52	35	5	18	15	579
24: 11pm (11pm-12am)	2	75	2	12	145	5	11	22	16	-	10	9	309

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	W Little York (West Leg)			W Little York (East Leg)			BW 8 NBFR (South Leg)			BW 8 SBFR (North Leg)			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	7,071	7,865	3,160	4,314	7,314	838	2,679	31,512	4,406	750	32,953	6,607	109,469
01: 12am (12am-1am)	37	39	8	9	28	-	16	196	15	-	109	19	476
02: 1am (1am-2am)	48	25	11	22	24	3	19	100	6	3	115	40	416
03: 2am (2am-3am)	55	16	3	14	47	-	4	79	40	-	151	20	429
04: 3am (3am-4am)	123	30	9	50	19	3	15	100	21	-	143	14	527
05: 4am (4am-5am)	83	77	16	21	66	6	27	189	26	-	310	167	988
06: 5am (5am-6am)	248	463	72	102	127	7	49	465	117	29	1,221	262	3,162
07: 6am (6am-7am)	520	714	203	219	311	17	82	1,273	293	75	2,953	392	7,052
08: 7am (7am-8am)	577	957	308	290	364	45	209	1,768	567	134	3,784	408	9,411
09: 8am (8am-9am)	468	861	316	244	291	15	169	1,894	361	85	3,463	381	8,548
10: 9am (9am-10am)	351	494	245	252	275	78	136	1,494	245	47	2,165	253	6,035
11: 10am (10am-11am)	249	400	204	274	277	51	184	1,124	246	34	1,694	261	4,998
12: 11am (11am-12noon)	369	351	196	235	263	75	188	1,461	245	44	1,710	337	5,474
13: 12pm (12noon-1pm)	309	362	251	250	345	48	184	1,533	267	47	1,692	323	5,611
14: 1pm (1pm-2pm)	321	345	174	220	415	44	143	1,690	231	68	1,615	348	5,614
15: 2pm (2pm-3pm)	446	405	166	299	430	65	178	1,923	246	26	1,643	389	6,216
16: 3pm (3pm-4pm)	527	462	233	403	657	68	129	2,643	300	41	2,042	382	7,887
17: 4pm (4pm-5pm)	725	494	180	381	899	71	187	3,649	289	45	2,048	639	9,607
18: 5pm (5pm-6pm)	573	550	141	341	756	125	176	3,697	255	12	1,725	566	8,917
19: 6pm (6pm-7pm)	425	304	141	221	521	36	193	2,475	204	20	1,537	446	6,523
20: 7pm (7pm-8pm)	190	218	108	135	422	15	118	1,328	149	8	1,106	351	4,148
21: 8pm (8pm-9pm)	172	157	45	87	312	18	114	907	62	33	761	232	2,900
22: 9pm (9pm-10pm)	126	83	68	108	289	9	74	731	82	5	494	157	2,226
23: 10pm (10pm-11pm)	80	59	26	51	147	33	53	542	43	3	280	114	1,431
24: 11pm (11pm-12am)	47	34	12	21	81	8	23	280	30	4	266	75	881

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	W Little York West Leg-Inbound			W Little York East Leg-Inbound			Hempstead South Leg-Inbound			Hempstead Rd North Leg-Inbound			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	207	7,791	3,623	119	6,035	304	4,653	3,418	657	464	2,748	416	30,435
01: 12am (12am-1am)	-	32	9	-	15	-	23	26	-	-	9	-	114
02: 1am (1am-2am)	-	16	8	-	31	-	14	6	-	-	8	-	83
03: 2am (2am-3am)	-	34	11	-	23	-	38	6	-	-	4	-	116
04: 3am (3am-4am)	-	35	11	-	52	-	12	19	-	-	8	-	137
05: 4am (4am-5am)	-	57	26	-	52	-	31	10	-	1	11	13	201
06: 5am (5am-6am)	-	315	166	-	137	20	76	43	1	3	70	57	888
07: 6am (6am-7am)	-	495	398	-	392	31	93	121	1	34	259	90	1,914
08: 7am (7am-8am)	41	791	489	7	499	32	189	136	4	41	497	44	2,770
09: 8am (8am-9am)	20	629	554	24	376	23	109	107	26	47	480	27	2,422
10: 9am (9am-10am)	21	465	238	5	302	14	172	72	11	27	134	52	1,513
11: 10am (10am-11am)	22	418	179	3	286	29	193	83	5	16	99	17	1,350
12: 11am (11am-12noon)	13	413	197	9	259	22	200	119	31	24	103	20	1,410
13: 12pm (12noon-1pm)	4	397	187	6	310	24	240	130	22	29	80	41	1,470
14: 1pm (1pm-2pm)	22	357	187	6	342	19	192	114	6	11	104	31	1,391
15: 2pm (2pm-3pm)	5	401	215	6	373	19	288	170	28	12	139	33	1,689
16: 3pm (3pm-4pm)	12	532	151	4	497	13	442	332	82	30	116	14	2,225
17: 4pm (4pm-5pm)	8	569	237	11	523	19	616	584	252	60	132	29	3,040
18: 5pm (5pm-6pm)	37	635	131	10	461	14	498	745	297	34	196	9	3,067
19: 6pm (6pm-7pm)	20	360	98	4	299	20	353	280	80	41	103	18	1,676
20: 7pm (7pm-8pm)	-	283	107	1	268	8	220	56	3	14	37	49	1,046
21: 8pm (8pm-9pm)	27	167	62	-	205	2	161	34	-	3	12	14	687
22: 9pm (9pm-10pm)	-	103	46	-	250	2	129	109	-	1	14	20	674
23: 10pm (10pm-11pm)	-	92	22	-	77	1	94	67	1	1	5	12	372
24: 11pm (11pm-12am)	-	46	14	-	47	-	56	17	-	1	7	-	188

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	290 EBFR (West Leg)			290 WBFR (East Leg)			Gessner Road (South Leg)			Gessner Road (North Leg)			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	2,049	36,220	2,804	3,328	100,884	3,858	4,618	4,590	1,990	4,379	4,052	393	169,165
01: 12am (12am-1am)	4	131	5	16	691	16	20	16	8	6	4	3	920
02: 1am (1am-2am)	4	78	8	9	371	12	18	19	3	3	19	-	544
03: 2am (2am-3am)	5	135	5	9	278	6	12	22	12	12	10	-	506
04: 3am (3am-4am)	16	172	23	20	266	10	12	7	7	7	8	-	548
05: 4am (4am-5am)	56	385	64	49	489	7	18	9	8	70	55	-	1,210
06: 5am (5am-6am)	72	1,675	154	197	1,589	79	78	36	27	198	184	-	4,289
07: 6am (6am-7am)	140	3,585	336	193	2,924	87	160	214	42	383	390	5	8,459
08: 7am (7am-8am)	175	4,372	328	304	3,482	111	241	311	127	469	697	9	10,626
09: 8am (8am-9am)	150	3,648	295	230	3,389	145	230	186	124	380	431	20	9,228
10: 9am (9am-10am)	111	2,534	178	191	3,482	149	208	149	123	276	220	40	7,661
11: 10am (10am-11am)	81	1,945	116	177	3,988	136	167	144	127	236	132	25	7,274
12: 11am (11am-12noon)	124	2,071	124	186	4,598	228	208	211	186	332	140	41	8,449
13: 12pm (12noon-1pm)	118	1,859	133	244	5,215	230	248	262	162	278	174	37	8,960
14: 1pm (1pm-2pm)	106	1,640	131	226	5,924	224	310	300	153	215	157	16	9,402
15: 2pm (2pm-3pm)	113	1,808	167	171	7,025	215	297	255	152	209	178	47	10,637
16: 3pm (3pm-4pm)	129	1,628	127	214	9,407	292	428	391	114	259	278	41	13,308
17: 4pm (4pm-5pm)	179	2,038	135	169	12,233	351	656	525	129	256	253	30	16,954
18: 5pm (5pm-6pm)	196	1,973	128	137	11,336	475	452	656	138	246	283	35	16,055
19: 6pm (6pm-7pm)	118	1,707	111	133	8,554	379	337	352	89	220	201	29	12,230
20: 7pm (7pm-8pm)	72	1,196	106	95	5,889	230	159	184	77	120	108	8	8,244
21: 8pm (8pm-9pm)	40	767	60	81	3,763	181	168	114	34	86	83	7	5,384
22: 9pm (9pm-10pm)	49	546	100	101	2,403	137	141	107	40	54	50	6	3,734
23: 10pm (10pm-11pm)	10	306	29	14	2,042	78	70	77	40	45	20	5	2,736
24: 11pm (11pm-12am)	10	183	29	27	1,533	55	35	38	15	13	16	3	1,957

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	Hempstead Road (West Leg)			Hempstead Road (East Leg)			Gessner Road (South Leg)			Gessner Road (North Leg)			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
00: All Day (12am-12am)	303	6,091	1,157	1,303	8,449	4,231	767	5,377	910	2,696	5,680	710	37,674
01: 12am (12am-1am)	-	20	-	3	42	21	-	21	-	5	7	7	126
02: 1am (1am-2am)	-	14	1	14	18	22	-	23	-	9	16	2	119
03: 2am (2am-3am)	-	17	1	3	41	20	1	17	2	11	12	-	125
04: 3am (3am-4am)	-	21	3	2	15	3	9	16	23	18	33	-	143
05: 4am (4am-5am)	3	33	15	9	39	5	1	10	9	55	109	4	292
06: 5am (5am-6am)	-	201	53	16	115	24	12	95	12	190	208	10	936
07: 6am (6am-7am)	12	633	152	28	225	121	4	230	82	259	511	18	2,275
08: 7am (7am-8am)	65	893	226	157	371	252	10	371	123	404	829	35	3,736
09: 8am (8am-9am)	24	1,082	131	62	246	230	18	210	86	219	584	25	2,917
10: 9am (9am-10am)	19	414	47	49	242	184	21	173	74	134	253	35	1,645
11: 10am (10am-11am)	17	286	29	39	253	143	25	172	29	119	203	27	1,342
12: 11am (11am-12noon)	5	290	46	117	323	223	18	230	54	135	194	36	1,671
13: 12pm (12noon-1pm)	16	257	37	59	337	262	45	279	57	140	255	52	1,796
14: 1pm (1pm-2pm)	26	269	46	56	281	238	35	348	31	141	229	60	1,760
15: 2pm (2pm-3pm)	18	323	36	85	441	273	30	342	29	126	289	34	2,026
16: 3pm (3pm-4pm)	6	242	57	113	784	372	150	447	41	143	363	64	2,782
17: 4pm (4pm-5pm)	10	317	102	134	1,426	575	155	627	67	161	401	98	4,073
18: 5pm (5pm-6pm)	27	293	73	133	1,654	468	194	665	65	149	373	82	4,176
19: 6pm (6pm-7pm)	23	167	56	78	711	314	45	420	24	87	292	43	2,260
20: 7pm (7pm-8pm)	7	154	21	36	259	136	14	267	10	68	201	18	1,191
21: 8pm (8pm-9pm)	6	73	15	18	193	135	5	157	14	38	141	15	810
22: 9pm (9pm-10pm)	15	70	11	27	199	113	9	155	4	75	125	26	829
23: 10pm (10pm-11pm)	-	25	10	10	149	77	6	71	11	15	37	8	419
24: 11pm (11pm-12am)	-	21	8	7	64	36	3	27	-	10	38	8	222

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	Tanner Road (West Leg)			Tanner Road (East Leg)			Gessner Road (South Leg)			Gessner Road (North Leg)			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	1,156	4,209	1,326	1,211	4,113	454	1,143	6,232	1,079	412	6,770	1,889	29,994
01: 12am (12am-1am)	-	2	-	7	25	-	4	21	-	-	12	1	72
02: 1am (1am-2am)	2	2	6	1	18	3	9	23	-	3	16	11	94
03: 2am (2am-3am)	-	7	2	2	4	10	2	11	9	2	15	3	67
04: 3am (3am-4am)	16	8	5	4	2	11	-	26	-	-	41	-	113
05: 4am (4am-5am)	13	21	4	23	2	-	-	14	16	8	96	9	206
06: 5am (5am-6am)	12	103	17	22	62	5	21	143	15	5	187	90	682
07: 6am (6am-7am)	55	283	63	41	154	7	113	278	56	18	539	77	1,684
08: 7am (7am-8am)	89	609	121	99	293	13	66	460	94	43	1,000	206	3,093
09: 8am (8am-9am)	82	523	109	48	224	20	73	249	87	34	709	122	2,280
10: 9am (9am-10am)	84	266	74	52	145	40	36	211	79	35	304	82	1,408
11: 10am (10am-11am)	60	244	41	68	157	19	39	217	44	20	261	83	1,253
12: 11am (11am-12noon)	98	229	74	66	164	25	55	239	50	27	311	73	1,411
13: 12pm (12noon-1pm)	84	306	75	67	253	27	67	329	70	30	272	105	1,685
14: 1pm (1pm-2pm)	60	212	57	54	192	43	70	343	72	26	280	123	1,532
15: 2pm (2pm-3pm)	63	199	58	79	265	25	41	337	48	6	315	146	1,582
16: 3pm (3pm-4pm)	85	262	220	74	330	33	100	554	78	28	427	171	2,362
17: 4pm (4pm-5pm)	85	289	132	82	564	60	127	804	76	25	540	256	3,040
18: 5pm (5pm-6pm)	127	302	83	124	577	63	162	814	72	26	445	173	2,968
19: 6pm (6pm-7pm)	54	115	45	111	360	11	64	482	64	48	378	65	1,797
20: 7pm (7pm-8pm)	34	93	36	54	152	18	31	269	32	14	238	42	1,013
21: 8pm (8pm-9pm)	10	74	32	40	58	11	17	160	18	-	176	5	601
22: 9pm (9pm-10pm)	9	34	27	40	70	5	18	166	32	4	144	21	570
23: 10pm (10pm-11pm)	16	31	32	22	39	7	8	80	10	3	57	14	319
24: 11pm (11pm-12am)	6	18	2	7	24	-	2	23	25	5	38	14	164

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	Tanner Road (West Leg)			Tanner Road (East Leg)						Landfill Driveway (North Leg)			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
00: All Day (12am-12am)	-	6,425	-	-	6,936	131	-	-	-	119	-	-	13,611
06: 5am (5am-6am)	-	159	-	-	150	-	-	-	-	-	-	-	309
13: 12pm (12noon-1pm)	18	448	-	-	368	7	-	-	-	-	-	-	841
14: 1pm (1pm-2pm)	-	292	-	-	322	8	-	-	-	8	-	-	630
15: 2pm (2pm-3pm)	-	286	-	-	397	17	-	-	-	-	-	19	719
16: 3pm (3pm-4pm)	-	532	-	-	526	11	-	-	-	23	-	-	1,092
17: 4pm (4pm-5pm)	-	499	-	-	984	3	-	-	-	-	-	21	1,507
19: 6pm (6pm-7pm)	3	191	-	-	522	-	-	-	-	6	-	-	722
08: 7am (7am-8am)	3	866	-	-	523	-	-	-	-	-	-	6	1,398
09: 8am (8am-9am)	-	668	-	-	376	8	-	-	-	-	-	3	1,055
10: 9am (9am-10am)	-	381	-	-	249	3	-	-	-	-	-	7	640
11: 10am (10am-11am)	-	327	-	-	294	11	-	-	-	-	-	5	637
12: 11am (11am-12noon)	-	387	-	-	253	17	-	-	-	-	-	6	663
18: 5pm (5pm-6pm)	-	478	-	-	985	5	-	-	-	-	-	-	1,468
20: 7pm (7pm-8pm)	-	174	-	-	232	3	-	-	-	-	-	-	409
21: 8pm (8pm-9pm)	-	103	-	-	108	-	-	-	-	-	-	3	214
24: 11pm (11pm-12am)	-	24	-	-	37	-	-	-	-	-	-	3	64
01: 12am (12am-1am)	-	-	-	-	28	-	-	-	-	-	-	-	28
02: 1am (1am-2am)	-	11	-	-	36	-	-	-	-	-	-	-	47
03: 2am (2am-3am)	-	7	-	-	8	-	-	-	-	-	-	-	15
04: 3am (3am-4am)	-	32	-	-	2	-	-	-	-	-	-	-	34
05: 4am (4am-5am)	-	34	-	-	6	-	-	-	-	-	-	-	40
07: 6am (6am-7am)	11	428	-	-	319	-	-	-	-	-	-	-	758
22: 9pm (9pm-10pm)	-	77	-	-	99	-	-	-	-	-	-	-	176
23: 10pm (10pm-11pm)	3	85	-	-	61	-	-	-	-	-	-	-	149

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

Day Part	Tanner Rd (West Leg)			Tanner Rd (East Leg)			BW 8 NBFR (South Leg)			BW SBFR (North Leg)			Total
	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	
00: All Day (12am-12am)	2,721	3,663	6,036	2,755	4,381	1,128	5,482	14,556	3,221	1,114	16,203	2,740	64,000
01: 12am (12am-1am)	5	-	14	17	12	1	37	111	-	-	68	5	270
02: 1am (1am-2am)	9	7	10	20	13	2	7	50	3	2	73	6	202
03: 2am (2am-3am)	25	5	31	1	5	2	3	50	2	4	97	29	254
04: 3am (3am-4am)	39	7	29	3	2	1	4	63	23	-	102	9	282
05: 4am (4am-5am)	20	4	38	3	2	3	43	130	28	2	147	18	438
06: 5am (5am-6am)	87	87	124	24	67	66	109	301	84	14	445	152	1,560
07: 6am (6am-7am)	224	264	602	60	290	34	287	643	270	82	1,354	218	4,328
08: 7am (7am-8am)	380	536	1,259	229	266	87	285	777	325	134	1,825	188	6,291
09: 8am (8am-9am)	205	464	658	135	281	51	228	697	293	154	1,806	155	5,127
10: 9am (9am-10am)	111	235	388	100	119	58	175	579	165	49	1,013	164	3,156
11: 10am (10am-11am)	115	161	289	156	156	66	200	542	168	74	761	134	2,822
12: 11am (11am-12noon)	126	145	360	141	136	80	201	615	254	76	814	125	3,073
13: 12pm (12noon-1pm)	138	197	292	254	157	91	336	655	260	118	807	155	3,460
14: 1pm (1pm-2pm)	125	162	271	186	137	71	340	793	144	76	738	130	3,173
15: 2pm (2pm-3pm)	118	111	308	209	228	64	305	854	199	57	840	166	3,459
16: 3pm (3pm-4pm)	228	408	287	263	350	105	430	1,225	191	40	1,018	184	4,729
17: 4pm (4pm-5pm)	245	292	272	293	664	131	603	1,789	209	85	949	388	5,920
18: 5pm (5pm-6pm)	266	275	377	209	806	117	541	1,694	207	61	840	237	5,630
19: 6pm (6pm-7pm)	133	101	201	225	331	40	547	1,132	114	43	765	170	3,802
20: 7pm (7pm-8pm)	42	71	116	77	155	28	262	614	91	22	601	38	2,117
21: 8pm (8pm-9pm)	26	37	53	43	81	31	216	460	59	15	412	25	1,458
22: 9pm (9pm-10pm)	19	42	51	40	62	5	181	403	28	21	358	16	1,226
23: 10pm (10pm-11pm)	8	45	15	29	41	11	86	277	43	17	210	13	795
24: 11pm (11pm-12am)	2	5	3	32	19	5	72	125	15	3	146	18	445

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	Tanner Rd (West Leg)			Tanner Rd (East Leg)			Brittmoore Rd (South Leg)			Brittmoore Rd (North Leg)			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	1,068	8,920	1,539	1,127	8,554	2,113	2,108	6,487	1,498	1,951	6,090	1,404	42,859
01: 12am (12am-1am)	-	8	-	-	46	15	1	33	-	9	36	-	148
02: 1am (1am-2am)	4	7	1	-	12	9	14	29	9	10	32	-	127
03: 2am (2am-3am)	-	24	-	4	3	10	-	4	12	3	10	3	73
04: 3am (3am-4am)	7	26	-	-	5	3	2	11	42	11	22	3	132
05: 4am (4am-5am)	7	34	18	24	28	5	3	27	11	22	89	3	271
06: 5am (5am-6am)	44	264	32	134	124	49	40	116	35	13	197	38	1,086
07: 6am (6am-7am)	41	1,007	170	95	514	82	64	180	89	92	660	152	3,146
08: 7am (7am-8am)	110	1,902	282	128	390	123	75	246	107	252	1,073	111	4,799
09: 8am (8am-9am)	35	1,089	205	114	380	106	68	210	59	224	943	156	3,589
10: 9am (9am-10am)	48	511	116	63	233	137	60	234	70	125	383	41	2,021
11: 10am (10am-11am)	22	358	70	58	239	123	50	245	75	100	228	60	1,628
12: 11am (11am-12noon)	76	365	104	70	258	109	118	304	92	130	241	50	1,917
13: 12pm (12noon-1pm)	59	336	53	63	394	133	102	349	119	138	311	76	2,133
14: 1pm (1pm-2pm)	41	358	44	59	354	117	81	319	86	106	226	58	1,849
15: 2pm (2pm-3pm)	64	321	44	50	442	153	115	395	79	111	247	138	2,159
16: 3pm (3pm-4pm)	102	643	52	76	653	201	173	608	127	133	247	82	3,097
17: 4pm (4pm-5pm)	149	496	58	74	1,272	226	327	1,092	198	92	336	120	4,440
18: 5pm (5pm-6pm)	131	519	141	31	1,351	178	348	876	181	171	286	112	4,325
19: 6pm (6pm-7pm)	42	324	49	39	862	108	187	513	62	71	221	101	2,579
20: 7pm (7pm-8pm)	15	153	25	21	380	53	100	220	18	51	125	23	1,184
21: 8pm (8pm-9pm)	8	81	30	6	254	60	73	191	10	24	87	14	838
22: 9pm (9pm-10pm)	8	76	9	1	202	56	78	171	10	29	59	15	714
23: 10pm (10pm-11pm)	25	48	9	6	97	33	15	73	4	16	48	6	380
24: 11pm (11pm-12am)	4	9	14	-	91	8	7	58	1	-	29	4	225

Day Type

1: Midweek (Tu-Th)

TURNING MOVEMENT COUNTS

	Brittmoore Park Dr (West Leg)						Brittmoore Rd (South Leg)			Brittmoore Rd (North Leg)			
Day Part	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	Total
00: All Day (12am-12am)	1,139	-	2,747	-	-	-	2,977	8,461	-	-	7,304	1,183	23,811
01: 12am (12am-1am)	-	-	2	-	-	-	14	29	-	-	29	-	74
02: 1am (1am-2am)	5	-	2	-	-	-	25	43	-	-	38	-	113
05: 4am (4am-5am)	-	-	30	-	-	-	20	44	-	-	117	17	228
07: 6am (6am-7am)	42	-	175	-	-	-	226	311	-	-	664	190	1,608
08: 7am (7am-8am)	49	-	600	-	-	-	201	361	-	-	1,158	194	2,563
09: 8am (8am-9am)	70	-	345	-	-	-	151	268	-	-	1,049	182	2,065
10: 9am (9am-10am)	73	-	138	-	-	-	110	294	-	-	492	73	1,180
11: 10am (10am-11am)	55	-	118	-	-	-	160	304	-	-	289	69	995
12: 11am (11am-12noon)	66	-	182	-	-	-	137	412	-	-	323	73	1,193
13: 12pm (12noon-1pm)	76	-	208	-	-	-	190	490	-	-	343	55	1,362
14: 1pm (1pm-2pm)	62	-	129	-	-	-	213	411	-	-	234	62	1,111
15: 2pm (2pm-3pm)	69	-	108	-	-	-	189	485	-	-	296	38	1,185
16: 3pm (3pm-4pm)	103	-	129	-	-	-	132	709	-	-	322	39	1,434
17: 4pm (4pm-5pm)	184	-	201	-	-	-	349	1,323	-	-	428	55	2,540
18: 5pm (5pm-6pm)	159	-	164	-	-	-	310	1,123	-	-	492	5	2,253
19: 6pm (6pm-7pm)	84	-	46	-	-	-	209	617	-	-	303	18	1,277
20: 7pm (7pm-8pm)	15	-	38	-	-	-	71	319	-	-	166	16	625
21: 8pm (8pm-9pm)	15	-	28	-	-	-	49	260	-	-	124	4	480
22: 9pm (9pm-10pm)	12	-	5	-	-	-	72	228	-	-	75	-	392
23: 10pm (10pm-11pm)	-	-	13	-	-	-	32	89	-	-	60	-	194
03: 2am (2am-3am)	-	-	2	-	-	-	-	7	-	-	13	-	22
04: 3am (3am-4am)	-	-	4	-	-	-	2	51	-	-	16	3	76
06: 5am (5am-6am)	-	-	49	-	-	-	109	212	-	-	253	78	701
24: 11pm (11pm-12am)	-	-	27	-	-	-	6	64	-	-	38	8	143

Node	Brittmoore Road		
A	South of Tanner Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	34	32	66
1:00 AM	37	54	92
2:00 AM	17	19	34
3:00 AM	19	58	76
4:00 AM	139	46	185
5:00 AM	372	221	591
6:00 AM	943	397	1341
7:00 AM	1532	448	1983
8:00 AM	1322	370	1690
9:00 AM	616	402	1017
10:00 AM	382	406	788
11:00 AM	477	543	1021
12:00 PM	480	623	1104
1:00 PM	355	514	869
2:00 PM	380	624	1005
3:00 PM	407	935	1343
4:00 PM	519	1648	2168
5:00 PM	533	1413	1946
6:00 PM	339	762	1102
7:00 PM	185	353	537
8:00 PM	131	278	408
9:00 PM	76	263	340
10:00 PM	64	93	158
11:00 PM	44	63	107
Total	**9403**	**10565**	**19971**

Node	Tanner Road		
B	West of Brittmoore Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	9	45	53
1:00 AM	13	27	40
2:00 AM	24	7	31
3:00 AM	34	12	46
4:00 AM	64	36	100
5:00 AM	348	211	559
6:00 AM	1245	745	1990
7:00 AM	2342	618	2960
8:00 AM	1373	652	2025
9:00 AM	694	398	1092
10:00 AM	461	373	834
11:00 AM	554	495	1049
12:00 PM	473	614	1086
1:00 PM	453	539	993
2:00 PM	440	749	1189
3:00 PM	802	985	1788
4:00 PM	718	1807	2525
5:00 PM	807	1889	2696
6:00 PM	428	1214	1642
7:00 PM	201	529	730
8:00 PM	120	361	481
9:00 PM	98	300	398
10:00 PM	82	120	202
11:00 PM	27	107	134
Total	**11810**	**12833**	**24643**

Node	Brittmoore Road		
C	North of Tanner Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	53	45	99
1:00 AM	43	49	92
2:00 AM	16	16	33
3:00 AM	35	23	57
4:00 AM	119	45	164
5:00 AM	252	216	468
6:00 AM	940	326	1266
7:00 AM	1492	505	1997
8:00 AM	1408	380	1788
9:00 AM	552	474	1026
10:00 AM	392	411	802
11:00 AM	431	530	961
12:00 PM	554	589	1143
1:00 PM	406	519	926
2:00 PM	523	642	1166
3:00 PM	474	987	1461
4:00 PM	562	1521	2083
5:00 PM	575	1281	1855
6:00 PM	404	679	1084
7:00 PM	203	287	491
8:00 PM	127	269	396
9:00 PM	109	238	347
10:00 PM	70	138	207
11:00 PM	33	70	103
Total	**9773**	**10240**	**20015**

Node	Beltway 8	
D	North of W Little York Road	
	Midweek October 2019	
Time	Northbound	Southbound
12:00 AM	135	253
1:00 AM	173	169
2:00 AM	182	150
3:00 AM	170	222
4:00 AM	522	307
5:00 AM	1590	775
6:00 AM	3643	1976
7:00 AM	4574	2620
8:00 AM	4155	2693
9:00 AM	2667	2112
10:00 AM	2151	1591
11:00 AM	2268	2098
12:00 PM	2252	2102
1:00 PM	2247	2282
2:00 PM	2263	2627
3:00 PM	2682	3476
4:00 PM	3100	4743
5:00 PM	2659	4715
6:00 PM	2166	3152
7:00 PM	1553	1633
8:00 PM	1097	1150
9:00 PM	697	918
10:00 PM	436	689
11:00 PM	362	356
Total	**43744**	**42809**

Node	Beltway 8	
E	South of W Little York Road	
	Midweek October 2019	
Time	Northbound	Southbound
12:00 AM	139	251
1:00 AM	159	132
2:00 AM	176	145
3:00 AM	216	148
4:00 AM	355	261
5:00 AM	1463	739
6:00 AM	3542	1871
7:00 AM	4644	2897
8:00 AM	4380	2755
9:00 AM	2931	2173
10:00 AM	2412	1795
11:00 AM	2366	2131
12:00 PM	2495	2253
1:00 PM	2276	2368
2:00 PM	2391	2647
3:00 PM	2968	3390
4:00 PM	3053	4536
5:00 PM	2540	4457
6:00 PM	2077	3091
7:00 PM	1453	1715
8:00 PM	974	1171
9:00 PM	730	991
10:00 PM	398	670
11:00 PM	320	369
Total	**44458**	**42956**

Node	Hempstead Road		
F	North of W Little York Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	27	10	36
1:00 AM	6	8	13
2:00 AM	8	4	11
3:00 AM	19	11	31
4:00 AM	10	27	36
5:00 AM	94	142	236
6:00 AM	201	400	602
7:00 AM	339	669	1008
8:00 AM	310	590	900
9:00 AM	138	230	368
10:00 AM	157	153	312
11:00 AM	197	161	358
12:00 PM	195	163	358
1:00 PM	207	226	433
2:00 PM	243	303	546
3:00 PM	383	663	1046
4:00 PM	669	1654	2322
5:00 PM	849	1424	2272
6:00 PM	370	912	1282
7:00 PM	96	218	314
8:00 PM	71	33	103
9:00 PM	126	36	163
10:00 PM	73	23	96
11:00 PM	19	19	38
Total	**4807**	**8079**	**12884**

Node	Hempstead Road		
G	South of W Little York Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	53	20	76
1:00 AM	23	16	39
2:00 AM	45	20	66
3:00 AM	27	25	51
4:00 AM	51	55	107
5:00 AM	143	320	463
6:00 AM	266	879	1145
7:00 AM	441	1320	1759
8:00 AM	332	1342	1673
9:00 AM	332	525	856
10:00 AM	324	383	707
11:00 AM	416	402	817
12:00 PM	471	357	827
1:00 PM	410	398	807
2:00 PM	568	469	1036
3:00 PM	1061	361	1421
4:00 PM	1730	498	2230
5:00 PM	1992	463	2454
6:00 PM	830	270	1104
7:00 PM	311	219	530
8:00 PM	217	113	332
9:00 PM	232	137	369
10:00 PM	174	41	215
11:00 PM	78	33	111
Total	**10527**	**8666**	**19195**

Node	US 290	
H	West of Gessner Road	
	Midweek October 2019	
Time	Eastbound	Westbound
12:00 AM	155	201
1:00 AM	93	107
2:00 AM	151	95
3:00 AM	217	78
4:00 AM	513	187
5:00 AM	1950	633
6:00 AM	4133	1106
7:00 AM	5000	1447
8:00 AM	4211	1310
9:00 AM	2927	1314
10:00 AM	2291	1365
11:00 AM	2493	1691
12:00 PM	2284	1759
1:00 PM	2025	1888
2:00 PM	2279	2100
3:00 PM	2092	2566
4:00 PM	2628	3473
5:00 PM	2574	3099
6:00 PM	2080	2233
7:00 PM	1453	1415
8:00 PM	934	1044
9:00 PM	747	935
10:00 PM	380	654
11:00 PM	237	314
Total	**43847**	**31014**

Node	US 290		
I	East of Gessner Road		
	Midweek October 2019		
Time	Eastbound	Westbound	
12:00 AM	158	201	
1:00 AM	90	116	
2:00 AM	167	107	
3:00 AM	201	99	
4:00 AM	482	228	
5:00 AM	1986	876	
6:00 AM	4192	1391	
7:00 AM	5271	1828	
8:00 AM	4344	1590	
9:00 AM	3086	1482	
10:00 AM	2468	1519	
11:00 AM	2763	1886	
12:00 PM	2576	2083	
1:00 PM	2259	2096	
2:00 PM	2398	2169	
3:00 PM	2222	2592	
4:00 PM	2698	3293	
5:00 PM	2589	3175	
6:00 PM	2177	2379	
7:00 PM	1527	1611	
8:00 PM	970	1146	
9:00 PM	714	1026	
10:00 PM	437	684	
11:00 PM	240	366	
Total	**46015**	**33943**	

Node	Gessner Road		
J	North of Hempstead Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	27	48	75
1:00 AM	37	46	82
2:00 AM	27	46	73
3:00 AM	62	29	91
4:00 AM	188	35	223
5:00 AM	563	141	705
6:00 AM	989	437	1425
7:00 AM	1521	801	2321
8:00 AM	1084	618	1701
9:00 AM	627	512	1139
10:00 AM	512	461	972
11:00 AM	523	645	1168
12:00 PM	645	718	1363
1:00 PM	631	821	1451
2:00 PM	599	791	1391
3:00 PM	762	1007	1769
4:00 PM	801	1416	2217
5:00 PM	705	1351	2056
6:00 PM	534	846	1380
7:00 PM	366	448	813
8:00 PM	249	331	579
9:00 PM	272	316	588
10:00 PM	82	190	272
11:00 PM	84	86	170
Total	**11890**	**12140**	**24024**

Node	Hempstead Road		
K	East of Gessner Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	32	74	106
1:00 AM	28	67	94
2:00 AM	30	67	97
3:00 AM	67	28	94
4:00 AM	99	67	166
5:00 AM	412	184	596
6:00 AM	983	555	1538
7:00 AM	1476	1016	2492
8:00 AM	1462	742	2204
9:00 AM	689	622	1310
10:00 AM	518	573	1092
11:00 AM	580	827	1407
12:00 PM	592	831	1423
1:00 PM	509	742	1250
2:00 PM	564	974	1538
3:00 PM	525	1458	1983
4:00 PM	649	2296	2945
5:00 PM	603	2455	3058
6:00 PM	325	1184	1506
7:00 PM	251	481	732
8:00 PM	129	380	509
9:00 PM	152	382	534
10:00 PM	60	269	329
11:00 PM	37	124	161
Total	**10772**	**16398**	**27164**

Node	Gessner Road		
L	South of Hempstead Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	15	21	36
1:00 AM	36	28	64
2:00 AM	24	24	48
3:00 AM	43	48	91
4:00 AM	136	30	165
5:00 AM	292	170	460
6:00 AM	713	387	1101
7:00 AM	1330	609	1939
8:00 AM	918	395	1312
9:00 AM	472	360	833
10:00 AM	390	310	700
11:00 AM	469	384	853
12:00 PM	471	506	977
1:00 PM	474	502	976
2:00 PM	514	463	977
3:00 PM	687	718	1405
4:00 PM	880	985	1865
5:00 PM	718	1074	1793
6:00 PM	539	590	1129
7:00 PM	329	341	670
8:00 PM	201	195	396
9:00 PM	180	182	362
10:00 PM	80	103	183
11:00 PM	58	34	92
Total	**9969**	**8459**	**18427**

Node	Tanner Road		
M	East of Gessner Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	5	33	38
1:00 AM	5	20	25
2:00 AM	23	18	40
3:00 AM	10	18	28
4:00 AM	45	28	73
5:00 AM	134	96	230
6:00 AM	409	214	623
7:00 AM	767	426	1193
8:00 AM	716	300	1016
9:00 AM	406	272	678
10:00 AM	308	280	588
11:00 AM	328	288	615
12:00 PM	431	368	800
1:00 PM	351	325	676
2:00 PM	270	406	676
3:00 PM	406	502	908
4:00 PM	424	762	1185
5:00 PM	424	835	1259
6:00 PM	245	525	769
7:00 PM	151	245	396
8:00 PM	101	134	235
9:00 PM	78	124	202
10:00 PM	48	78	126
11:00 PM	50	33	83
Total	**6135**	**6330**	**12462**

Node	Gessner Road		
N	South of Tanner Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	19	24	43
1:00 AM	24	33	57
2:00 AM	24	21	45
3:00 AM	54	30	84
4:00 AM	123	40	163
5:00 AM	232	178	410
6:00 AM	697	485	1181
7:00 AM	1362	637	1999
8:00 AM	951	425	1376
9:00 AM	467	342	809
10:00 AM	422	313	735
11:00 AM	518	365	883
12:00 PM	466	499	964
1:00 PM	449	503	952
2:00 PM	487	449	936
3:00 PM	770	782	1551
4:00 PM	870	1055	1924
5:00 PM	728	1086	1813
6:00 PM	574	644	1217
7:00 PM	365	357	722
8:00 PM	274	228	502
9:00 PM	219	237	455
10:00 PM	118	106	225
11:00 PM	61	52	114
Total	**10274**	**8891**	**19160**

Node	Tanner Road		
O	West of Gessner Road		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	2	33	35
1:00 AM	15	42	57
2:00 AM	9	13	22
3:00 AM	31	2	33
4:00 AM	37	13	50
5:00 AM	166	195	361
6:00 AM	481	446	927
7:00 AM	927	674	1601
8:00 AM	779	521	1299
9:00 AM	464	302	766
10:00 AM	389	346	735
11:00 AM	475	339	814
12:00 PM	562	481	1043
1:00 PM	381	451	831
2:00 PM	361	510	871
3:00 PM	661	667	1328
4:00 PM	573	1078	1651
5:00 PM	584	1089	1673
6:00 PM	260	604	864
7:00 PM	208	262	470
8:00 PM	136	129	265
9:00 PM	96	116	212
10:00 PM	90	77	166
11:00 PM	24	44	68
Total	**7711**	**8434**	**16142**

Node	Tanner Road		
P	East of Beltway 8		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	4	31	35
1:00 AM	12	41	53
2:00 AM	14	10	25
3:00 AM	31	6	37
4:00 AM	35	10	45
5:00 AM	186	170	356
6:00 AM	619	419	1038
7:00 AM	1016	638	1653
8:00 AM	920	497	1416
9:00 AM	476	315	791
10:00 AM	411	413	824
11:00 AM	484	388	873
12:00 PM	611	560	1171
1:00 PM	388	443	832
2:00 PM	366	548	913
3:00 PM	636	791	1426
4:00 PM	570	1183	1753
5:00 PM	570	1210	1780
6:00 PM	276	642	917
7:00 PM	184	280	464
8:00 PM	116	170	286
9:00 PM	92	114	206
10:00 PM	102	88	190
11:00 PM	22	59	82
Total	**8141**	**9026**	**17166**

Node	Beltway 8	
Q	North of Tanner Road	
	Midweek October 2019	
Time	Northbound	Southbound
12:00 AM	94	122
1:00 AM	91	64
2:00 AM	143	83
3:00 AM	128	102
4:00 AM	192	163
5:00 AM	751	547
6:00 AM	1920	1061
7:00 AM	2475	1466
8:00 AM	2396	1176
9:00 AM	1432	873
10:00 AM	1119	804
11:00 AM	1215	971
12:00 PM	1275	1020
1:00 PM	1172	1102
2:00 PM	1292	1194
3:00 PM	1601	1768
4:00 PM	1847	2314
5:00 PM	1538	2205
6:00 PM	1196	1403
7:00 PM	751	703
8:00 PM	496	530
9:00 PM	439	452
10:00 PM	287	327
11:00 PM	185	138
Total	**24035**	**20588**

Node	Beltway 8	
R	South of Tanner Road	
	Midweek October 2019	
Time	Northbound	Southbound
12:00 AM	100	164
1:00 AM	106	78
2:00 AM	137	68
3:00 AM	139	94
4:00 AM	190	232
5:00 AM	617	568
6:00 AM	2103	1364
7:00 AM	3465	1716
8:00 AM	2815	1542
9:00 AM	1678	1159
10:00 AM	1330	1091
11:00 AM	1516	1324
12:00 PM	1533	1510
1:00 PM	1353	1510
2:00 PM	1526	1592
3:00 PM	1783	2127
4:00 PM	1844	2986
5:00 PM	1690	2769
6:00 PM	1350	2026
7:00 PM	866	1073
8:00 PM	552	818
9:00 PM	476	677
10:00 PM	280	443
11:00 PM	187	232
Total	**27636**	**27163**

Node	Tanner Road		
S	West of Beltway 8		
	Midweek October 2019		
Time	Northbound	Southbound	Total
12:00 AM	19	60	78
1:00 AM	30	30	60
2:00 AM	61	45	107
3:00 AM	83	17	100
4:00 AM	69	64	133
5:00 AM	325	320	644
6:00 AM	1193	795	1987
7:00 AM	2327	766	3092
8:00 AM	1402	726	2127
9:00 AM	776	500	1276
10:00 AM	604	502	1105
11:00 AM	668	516	1183
12:00 PM	676	702	1378
1:00 PM	599	617	1216
2:00 PM	577	740	1316
3:00 PM	994	987	1981
4:00 PM	875	1646	2520
5:00 PM	991	1624	2614
6:00 PM	475	1047	1522
7:00 PM	243	476	719
8:00 PM	124	329	453
9:00 PM	118	268	386
10:00 PM	72	139	212
11:00 PM	13	103	116
Total	**13314**	**13019**	**26325**

Appendix C
Capacity Analysis – 2019 Existing Conditions

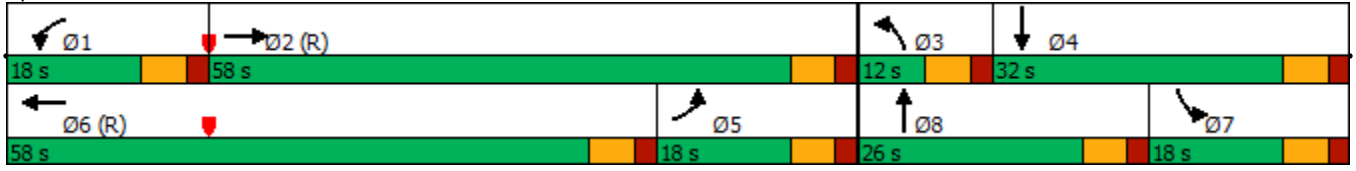
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	1504	154	298	557	82	39	176	145	118	1022	83
Future Volume (vph)	74	1504	154	298	557	82	39	176	145	118	1022	83
Satd. Flow (prot)	1770	3490	0	1770	3472	0	1770	3299	0	1770	3500	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1770	3472	0	1770	3299	0	1770	3500	0
Satd. Flow (RTOR)		11			17			150			6	
Lane Group Flow (vph)	80	1802	0	324	694	0	42	349	0	128	1201	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	18.0	58.0		18.0	58.0		12.0	26.0		18.0	32.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	10.7	52.0		12.0	55.6		5.7	20.0		12.0	28.4	
Actuated g/C Ratio	0.09	0.43		0.10	0.46		0.05	0.17		0.10	0.24	
v/c Ratio	0.51	1.19		1.83	0.43		0.50	0.52		0.72	1.44	
Control Delay	63.0	123.0		399.9	21.6		76.1	28.6		75.6	240.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	63.0	123.0		399.9	21.6		76.1	28.6		75.6	240.2	
LOS	E	F		F	C		E	C		E	F	
Approach Delay		120.5			142.0			33.7			224.4	
Approach LOS		F			F			C			F	
Queue Length 50th (ft)	59	~885		~363	123		32	72		98	~699	
Queue Length 95th (ft)	112	#1027		m#347	m188		#72	122		#191	#838	
Internal Link Dist (ft)		996			1105			1257			271	
Turn Bay Length (ft)	100			130			150			100		
Base Capacity (vph)	177	1518		177	1618		88	674		177	833	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.45	1.19		1.83	0.43		0.48	0.52		0.72	1.44	

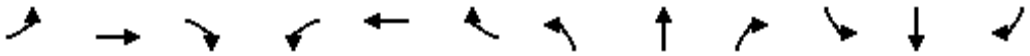
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 46 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.83
Intersection Signal Delay: 147.8 Intersection LOS: F
Intersection Capacity Utilization 117.2% ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Brittmoore Rd & W Little York Rd



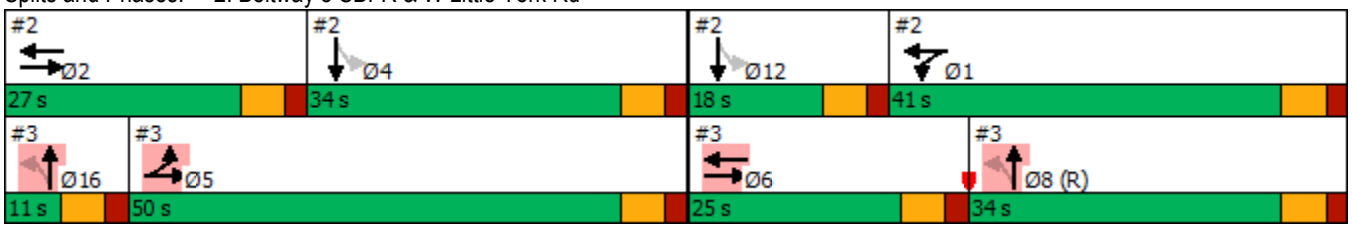


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1534	308	290	573	0	0	0	0	134	3784	408
Future Volume (vph)	0	1534	308	290	573	0	0	0	0	134	3784	408
Satd. Flow (prot)	0	4958	0	1770	3539	0	0	0	0	0	5004	0
Flt Permitted				0.950							0.998	
Satd. Flow (perm)	0	4958	0	1770	3539	0	0	0	0	0	5004	0
Satd. Flow (RTOR)		31									17	
Lane Group Flow (vph)	0	2002	0	315	623	0	0	0	0	0	4702	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases										4 12		
Total Split (s)		27.0		41.0								
Total Lost Time (s)		6.0		6.0								
Act Effct Green (s)		21.0		35.0	62.0						46.0	
Actuated g/C Ratio		0.18		0.29	0.52						0.38	
v/c Ratio		2.24		0.61	0.34						2.44	
Control Delay		585.4		16.9	10.2						669.7	
Queue Delay		3.2		59.9	18.5						0.0	
Total Delay		588.6		76.9	28.7						669.7	
LOS		F		E	C						F	
Approach Delay		588.6			44.9						669.7	
Approach LOS		F			D						F	
Queue Length 50th (ft)		~941		209	206						~2231	
Queue Length 95th (ft)		m#802		m238	m223						#2283	
Internal Link Dist (ft)		310			159			74			85	
Turn Bay Length (ft)												
Base Capacity (vph)		893		516	1828						1928	
Starvation Cap Reductn		0		254	1202						0	
Spillback Cap Reductn		349		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		3.68		1.20	1.00						2.44	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 2.44	
Intersection Signal Delay: 571.8	Intersection LOS: F
Intersection Capacity Utilization 152.5%	ICU Level of Service H
Analysis Period (min) 15	

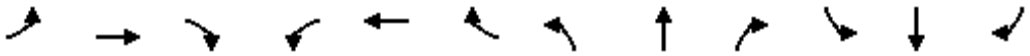
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Beltway 8 SBFR & W Little York Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	34.0	50.0	25.0	34.0	18.0	11.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

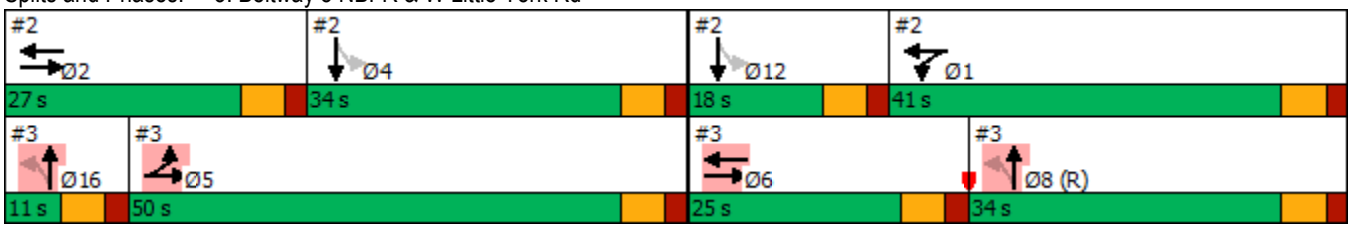


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	577	1091	0	0	654	45	209	1768	567	0	0	0
Future Volume (vph)	577	1091	0	0	654	45	209	1768	567	0	0	0
Satd. Flow (prot)	1770	3539	0	0	5034	0	1522	4633	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3539	0	0	5034	0	1522	4633	0	0	0	0
Satd. Flow (RTOR)					8			69				
Lane Group Flow (vph)	627	1186	0	0	760	0	204	2561	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	50.0				25.0							
Total Lost Time (s)	6.0				6.0							
Act Effct Green (s)	44.0	69.0			19.0		39.0	39.0				
Actuated g/C Ratio	0.37	0.58			0.16		0.32	0.32				
v/c Ratio	0.97	0.58			0.95		0.41	1.65				
Control Delay	26.7	14.5			55.3		34.7	324.0				
Queue Delay	51.3	55.3			44.2		0.0	0.0				
Total Delay	78.0	69.8			99.6		34.8	324.0				
LOS	E	E			F		C	F				
Approach Delay		72.6			99.6			302.7				
Approach LOS		E			F			F				
Queue Length 50th (ft)	514	483			112		143	~1110				
Queue Length 95th (ft)	m118	m51			#278		226	#1208				
Internal Link Dist (ft)		159			353			68			75	
Turn Bay Length (ft)												
Base Capacity (vph)	649	2034			803		494	1552				
Starvation Cap Reductn	432	1584			0		0	0				
Spillback Cap Reductn	0	0			170		4	8				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	2.89	2.64			1.20		0.42	1.66				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 2.44	
Intersection Signal Delay: 195.6	Intersection LOS: F
Intersection Capacity Utilization 152.5%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beltway 8 NBFR & W Little York Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	41.0	27.0	34.0	34.0	18.0	11.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	791	489	7	499	32	189	136	4	41	497	44
Future Volume (vph)	41	791	489	7	499	32	189	136	4	41	497	44
Satd. Flow (prot)	1770	3337	0	1770	3507	0	1770	3525	0	1770	3497	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3337	0	1770	3507	0	1770	3525	0	1770	3497	0
Satd. Flow (RTOR)		103			6			2			8	
Lane Group Flow (vph)	45	1392	0	8	577	0	205	152	0	45	588	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	14.1	33.0		23.5	42.4		23.5	49.5		14.0	40.0	
Total Lost Time (s)	5.5	5.4		5.5	5.4		5.5	5.5		5.5	5.5	
Act Effct Green (s)	8.6	27.6		18.0	37.0		18.0	44.0		8.5	34.5	
Actuated g/C Ratio	0.07	0.23		0.15	0.31		0.15	0.37		0.07	0.29	
v/c Ratio	0.36	1.65		0.03	0.53		0.77	0.12		0.36	0.58	
Control Delay	64.5	324.7		44.1	36.1		41.0	15.9		61.7	38.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	64.5	324.7		44.1	36.1		41.0	15.9		61.7	38.8	
LOS	E	F		D	D		D	B		E	D	
Approach Delay		316.5			36.2			30.3			40.4	
Approach LOS		F			D			C			D	
Queue Length 50th (ft)	34	~800		5	192		171	63		34	202	
Queue Length 95th (ft)	m45	m#730		20	250		#279	98		74	262	
Internal Link Dist (ft)		473			1258			257			824	
Turn Bay Length (ft)	320			150			160			150		
Base Capacity (vph)	126	846		265	1085		265	1293		125	1011	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.36	1.65		0.03	0.53		0.77	0.12		0.36	0.58	

Intersection Summary

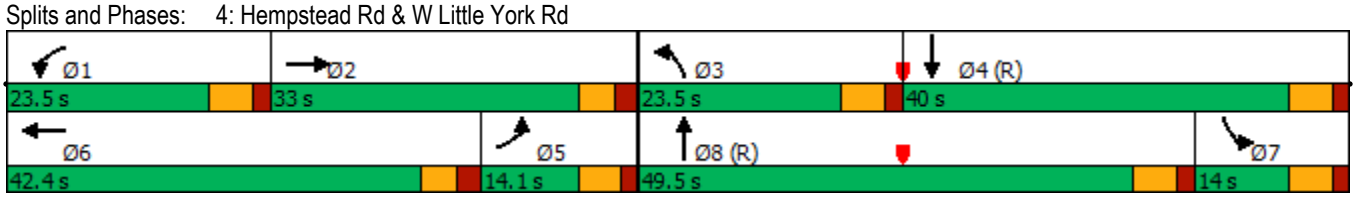
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.65
Intersection Signal Delay: 170.1 Intersection LOS: F
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

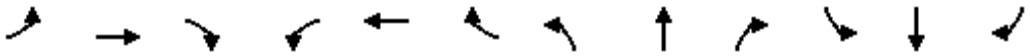
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hempstead Rd & W Little York Rd



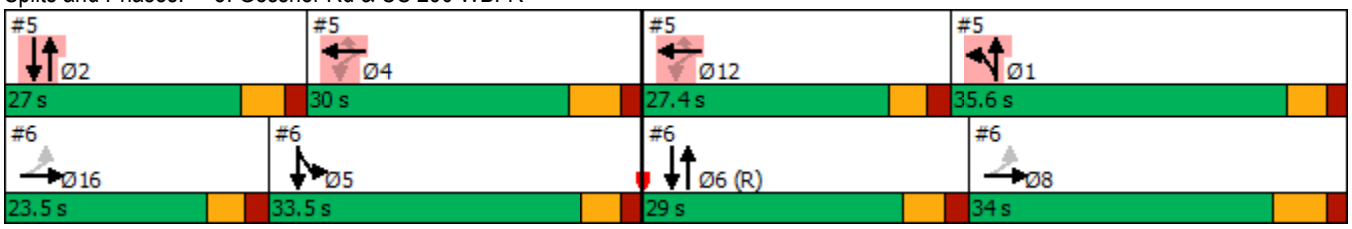


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	295	1057	111	250	484	0	0	1173	9
Future Volume (vph)	0	0	0	295	1057	111	250	484	0	0	1173	9
Satd. Flow (prot)	0	0	0	1610	3387	1583	1610	3383	0	0	5080	0
Flt Permitted				0.950	0.999		0.950	0.868				
Satd. Flow (perm)	0	0	0	1610	3387	1583	1610	2943	0	0	5080	0
Satd. Flow (RTOR)						107					1	
Lane Group Flow (vph)	0	0	0	289	1181	121	245	553	0	0	1285	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							35.6				27.0	
Total Lost Time (s)							5.5				5.9	
Act Effct Green (s)				50.0	50.0	50.0	30.8	52.3			21.1	
Actuated g/C Ratio				0.42	0.42	0.42	0.26	0.44			0.18	
v/c Ratio				0.43	0.84	0.17	0.59	0.51			1.44	
Control Delay				27.2	37.8	5.7	27.0	18.0			239.8	
Queue Delay				0.4	4.1	0.0	23.9	1.9			3.0	
Total Delay				27.6	41.9	5.7	51.0	19.9			242.8	
LOS				C	D	A	D	B			F	
Approach Delay					36.5			29.4			242.8	
Approach LOS					D			C			F	
Queue Length 50th (ft)				170	438	6	198	207			~498	
Queue Length 95th (ft)				254	536	42	m273	m262			#595	
Internal Link Dist (ft)		78			52			183			787	
Turn Bay Length (ft)												
Base Capacity (vph)				680	1431	730	413	1074			894	
Starvation Cap Reductn				0	0	0	162	357			0	
Spillback Cap Reductn				113	179	0	0	0			337	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.51	0.94	0.17	0.98	0.77			2.31	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.59	
Intersection Signal Delay: 107.1	Intersection LOS: F
Intersection Capacity Utilization 128.3%	ICU Level of Service H
Analysis Period (min) 15	

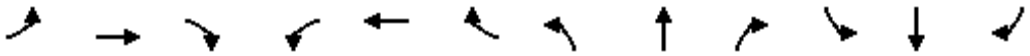
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Gessner Rd & US 290 WBFR



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	30.0	33.5	29.0	34.0	27.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

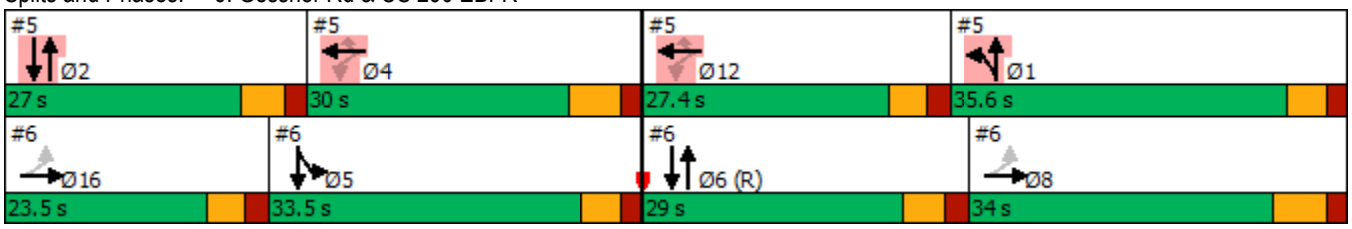


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	4356	325	0	0	0	0	557	123	473	995	0
Future Volume (vph)	177	4356	325	0	0	0	0	557	123	473	995	0
Satd. Flow (prot)	1610	3356	0	0	0	0	0	4948	0	1610	3383	0
Flt Permitted	0.950									0.950	0.849	
Satd. Flow (perm)	1610	3356	0	0	0	0	0	4948	0	1610	2878	0
Satd. Flow (RTOR)		7						21				
Lane Group Flow (vph)	173	5107	0	0	0	0	0	739	0	463	1133	0
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16											
Total Split (s)								29.0		33.5		
Total Lost Time (s)								5.9		5.5		
Act Effct Green (s)	50.8	50.8						23.1		28.0	51.5	
Actuated g/C Ratio	0.42	0.42						0.19		0.23	0.43	
v/c Ratio	0.25	3.59						0.76		1.23	1.13	
Control Delay	23.6	1180.4						55.5		132.8	85.4	
Queue Delay	0.1	0.3						0.7		4.6	1.6	
Total Delay	23.7	1180.7						56.1		137.4	87.0	
LOS	C	F						E		F	F	
Approach Delay		1142.8						56.1			101.6	
Approach LOS		F						E			F	
Queue Length 50th (ft)	93	~3945						190		~501	~562	
Queue Length 95th (ft)	151	#4007						m224		m327	m363	
Internal Link Dist (ft)		77			77			1992			183	
Turn Bay Length (ft)												
Base Capacity (vph)	681	1424						969		375	1000	
Starvation Cap Reductn	0	0						0		122	261	
Spillback Cap Reductn	75	118						54		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.29	3.91						0.81		1.83	1.53	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.59	
Intersection Signal Delay: 819.1	Intersection LOS: F
Intersection Capacity Utilization 128.3%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Gessner Rd & US 290 EBFR



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	35.6	27.0	30.0	34.0	27.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	893	226	157	371	252	10	371	123	404	829	35
Future Volume (vph)	65	893	226	157	371	252	10	371	123	404	829	35
Satd. Flow (prot)	1770	3433	0	1770	3539	1583	1770	3408	0	1770	3518	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3433	0	1770	3539	1583	1770	3408	0	1770	3518	0
Satd. Flow (RTOR)		27				274		32			4	
Lane Group Flow (vph)	71	1217	0	171	403	274	11	537	0	439	939	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	6	2		1	5		3	7		8	4	
Permitted Phases						5						
Total Split (s)	34.4	43.2		17.2	26.0	26.0	11.0	25.0		34.6	48.6	
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	6.0	6.0		6.0	6.0	
Act Effct Green (s)	24.9	37.7		11.7	26.7	26.7	5.0	19.0		28.6	51.4	
Actuated g/C Ratio	0.21	0.31		0.10	0.22	0.22	0.04	0.16		0.24	0.43	
v/c Ratio	0.19	1.11		0.99	0.51	0.49	0.15	0.95		1.04	0.62	
Control Delay	33.3	91.2		121.6	46.6	8.3	37.8	57.3		68.7	23.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	33.3	91.2		121.6	46.6	8.3	37.8	57.3		68.7	23.8	
LOS	C	F		F	D	A	D	E		E	C	
Approach Delay		88.0			49.3			56.9			38.1	
Approach LOS		F			D			E			D	
Queue Length 50th (ft)	45	~575		134	156	0	8	218		~374	337	
Queue Length 95th (ft)	m56	m#485		#280	211	76	m20	#328		m256	m256	
Internal Link Dist (ft)		196			702			311			1992	
Turn Bay Length (ft)	100			100		175	200			120		
Base Capacity (vph)	436	1097		172	807	572	73	566		421	1509	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.16	1.11		0.99	0.50	0.48	0.15	0.95		1.04	0.62	

Intersection Summary

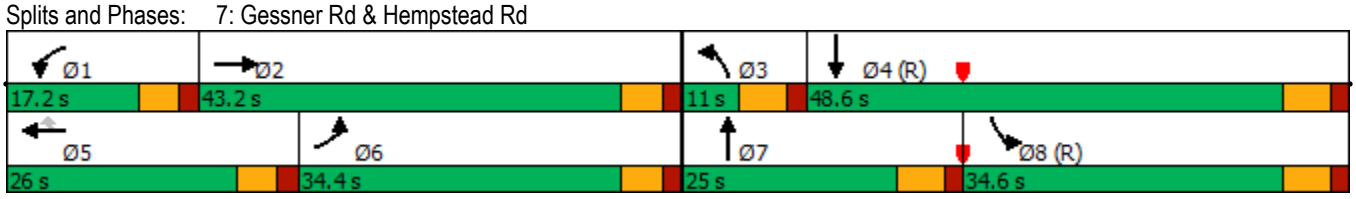
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:SBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 58.8 Intersection LOS: E
Intersection Capacity Utilization 96.3% ICU Level of Service F
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Gessner Rd & Hempstead Rd



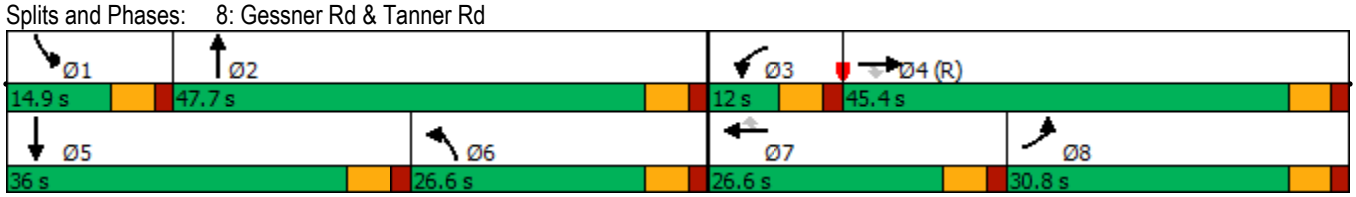
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	609	121	99	293	13	66	460	94	43	1000	206
Future Volume (vph)	89	609	121	99	293	13	66	460	94	43	1000	206
Satd. Flow (prot)	1652	1863	1583	1652	1863	1583	1652	3451	0	1652	3447	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1652	1863	1583	1652	1863	1583	1652	3451	0	1652	3447	0
Satd. Flow (RTOR)			176			176		22			19	
Lane Group Flow (vph)	97	662	132	108	318	14	72	602	0	47	1311	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases			4			7						
Total Split (s)	30.8	45.4	45.4	12.0	26.6	26.6	26.6	47.7		14.9	36.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		5.6	5.6	
Act Effct Green (s)	25.2	39.8	39.8	6.4	21.0	21.0	21.0	42.1		9.3	30.4	
Actuated g/C Ratio	0.21	0.33	0.33	0.05	0.18	0.18	0.18	0.35		0.08	0.25	
v/c Ratio	0.28	1.07	0.21	1.23	0.98	0.03	0.25	0.49		0.37	1.48	
Control Delay	48.6	95.3	7.9	216.0	93.7	0.2	45.4	31.0		54.5	253.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	48.6	95.3	7.9	216.0	93.7	0.2	45.4	31.0		54.5	253.1	
LOS	D	F	A	F	F	A	D	C		D	F	
Approach Delay		77.3			120.7			32.5			246.2	
Approach LOS		E			F			C			F	
Queue Length 50th (ft)	62	~535	19	~103	248	0	49	184		38	~744	
Queue Length 95th (ft)	m99	#775	m43	#222	#432	0	93	240		m55	m#821	
Internal Link Dist (ft)		115			125			620			3415	
Turn Bay Length (ft)			50			50	200			200		
Base Capacity (vph)	346	617	642	88	326	422	289	1225		128	887	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.28	1.07	0.21	1.23	0.98	0.03	0.25	0.49		0.37	1.48	

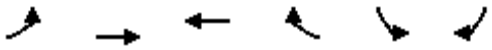
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 4:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.48
Intersection Signal Delay: 142.2 Intersection LOS: F
Intersection Capacity Utilization 96.3% ICU Level of Service F
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Gessner Rd & Tanner Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	866	523	0	0	6
Future Volume (Veh/h)	3	866	523	0	0	6
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	941	568	0	0	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1141				
pX, platoon unblocked					0.78	
vC, conflicting volume	568				1515	568
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	568				1519	568
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	1004				102	522

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	944	568	7
Volume Left	3	0	0
Volume Right	0	0	7
cSH	1004	1700	522
Volume to Capacity	0.00	0.33	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	12.0
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.0
Approach LOS			B

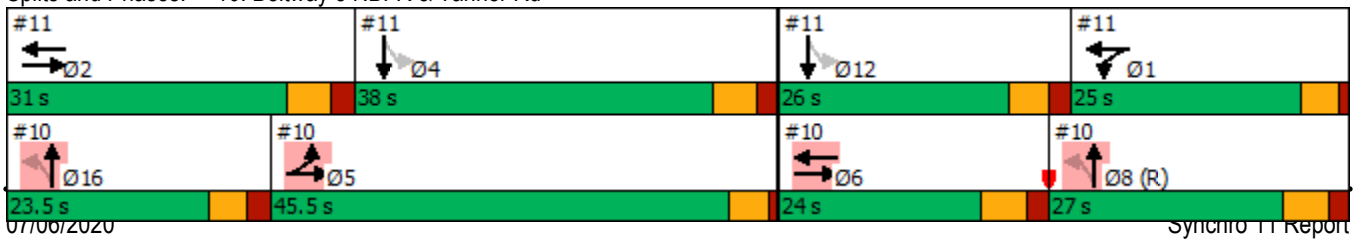
Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		58.0%	ICU Level of Service B
Analysis Period (min)		15	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	380	670	0	0	495	87	285	777	325	0	0	0
Future Volume (vph)	380	670	0	0	495	87	285	777	325	0	0	0
Satd. Flow (prot)	1610	3380	0	0	4968	0	0	4858	0	0	0	0
Flt Permitted	0.950	0.928						0.990				
Satd. Flow (perm)	1610	3146	0	0	4968	0	0	4858	0	0	0	0
Satd. Flow (RTOR)					24			73				
Lane Group Flow (vph)	368	773	0	0	633	0	0	1508	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	45.5				24.0							
Total Lost Time (s)	4.5				6.0							
Act Effct Green (s)	41.2	57.7			18.0			44.3				
Actuated g/C Ratio	0.34	0.48			0.15			0.37				
v/c Ratio	0.67	0.59			0.83			0.82				
Control Delay	24.9	18.4			33.7			37.0				
Queue Delay	59.5	36.2			0.8			0.3				
Total Delay	84.4	54.6			34.5			37.3				
LOS	F	D			C			D				
Approach Delay		64.2			34.5			37.3				
Approach LOS		E			C			D				
Queue Length 50th (ft)	320	318			121			366				
Queue Length 95th (ft)	m341	m340			m113			429				
Internal Link Dist (ft)		223			174			89			91	
Turn Bay Length (ft)												
Base Capacity (vph)	553	1321			765			1847				
Starvation Cap Reductn	288	592			0			0				
Spillback Cap Reductn	0	0			25			59				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	1.39	1.06			0.86			0.84				

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 54 (45%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 46.1	Intersection LOS: D
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Beltway 8 NBFR & Tanner Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	25.0	31.0	38.0	27.0	26.0	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

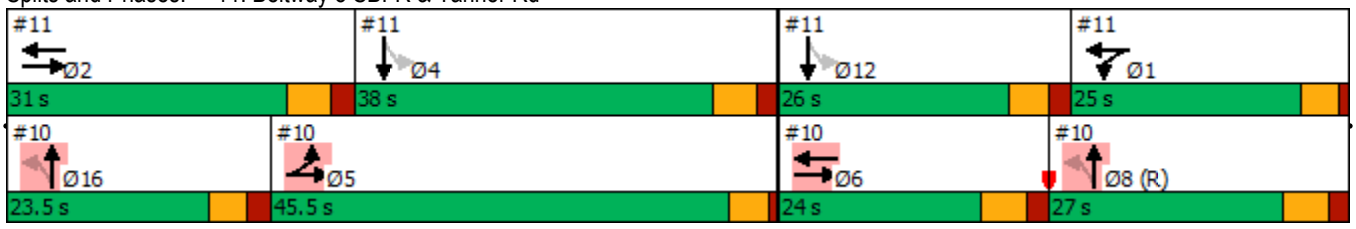
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	916	1259	229	551	0	0	0	0	134	1825	188
Future Volume (vph)	0	916	1259	229	551	0	0	0	0	134	1825	188
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	0	5004	0
Flt Permitted				0.950							0.997	
Satd. Flow (perm)	0	5085	1583	1770	3539	0	0	0	0	0	5004	0
Satd. Flow (RTOR)			277								18	
Lane Group Flow (vph)	0	996	1368	249	599	0	0	0	0	0	2334	0
Turn Type		NA	Free	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases			Free							4 12		
Total Split (s)		31.0		25.0								
Total Lost Time (s)		6.0		4.5								
Act Effct Green (s)		25.0	120.0	20.5	50.0						58.0	
Actuated g/C Ratio		0.21	1.00	0.17	0.42						0.48	
v/c Ratio		0.94	0.86	0.82	0.41						0.96	
Control Delay		63.6	6.9	46.9	14.2						41.3	
Queue Delay		45.1	0.0	20.6	5.4						3.9	
Total Delay		108.6	6.9	67.6	19.6						45.2	
LOS		F	A	E	B						D	
Approach Delay		49.8			33.7						45.2	
Approach LOS		D			C						D	
Queue Length 50th (ft)		280	0	184	179						617	
Queue Length 95th (ft)		#367	0	m236	m225						#752	
Internal Link Dist (ft)		1818			223			109			83	
Turn Bay Length (ft)			100									
Base Capacity (vph)		1059	1583	302	1474						2427	
Starvation Cap Reductn		0	0	50	799						0	
Spillback Cap Reductn		267	0	0	0						73	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		1.26	0.86	0.99	0.89						0.99	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 8:NBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 45.4 — Intersection LOS: D
Intersection Capacity Utilization 86.3% — ICU Level of Service E
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Beltway 8 SBFR & Tanner Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	38.0	45.5	24.0	27.0	26.0	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

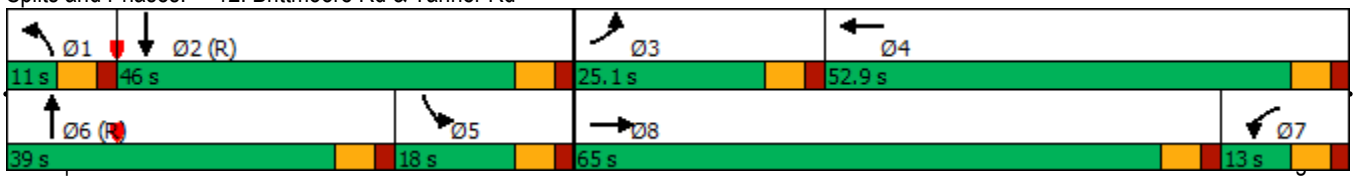
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	1902	282	128	390	123	75	246	107	252	1073	111
Future Volume (vph)	110	1902	282	128	390	123	75	246	107	252	1073	111
Satd. Flow (prot)	1593	3125	0	1593	3071	0	1593	3042	0	1593	3141	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1593	3125	0	1593	3071	0	1593	3042	0	1593	3141	0
Satd. Flow (RTOR)		15			34			48			8	
Lane Group Flow (vph)	120	2374	0	139	558	0	82	383	0	274	1287	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Total Split (s)	25.1	65.0		13.0	52.9		11.0	39.0		18.0	46.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	14.2	59.0		7.0	51.8		5.0	33.0		12.0	40.0	
Actuated g/C Ratio	0.11	0.44		0.05	0.38		0.04	0.24		0.09	0.30	
v/c Ratio	0.72	1.73		1.70	0.47		1.39	0.49		1.94	1.38	
Control Delay	80.9	357.8		396.0	31.4		296.7	40.5		480.6	212.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	80.9	357.8		396.0	31.4		296.7	40.5		480.6	212.3	
LOS	F	F		F	C		F	D		F	F	
Approach Delay		344.5			104.1			85.7			259.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	103	~1626		~178	180		~96	133		~370	~786	
Queue Length 95th (ft)	167	#1757		#316	249		#207	185		#552	#928	
Internal Link Dist (ft)		951			1818			1813			1031	
Turn Bay Length (ft)	120			120			200			150		
Base Capacity (vph)	225	1374		82	1199		59	779		141	936	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.53	1.73		1.70	0.47		1.39	0.49		1.94	1.38	

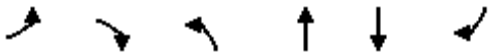
Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 29 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.94
Intersection Signal Delay: 263.8 — Intersection LOS: F
Intersection Capacity Utilization 137.8% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

Splits and Phases: 12: Brittmoore Rd & Tanner Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	600	201	361	1158	194
Future Volume (Veh/h)	49	600	201	361	1158	194
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	652	218	392	1259	211
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1996	735	1470			
vC1, stage 1 conf vol	1364					
vC2, stage 2 conf vol	632					
vCu, unblocked vol	1996	735	1470			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	66	0	52			
cM capacity (veh/h)	155	362	455			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	53	652	218	196	196	839	631
Volume Left	53	0	218	0	0	0	0
Volume Right	0	652	0	0	0	0	211
cSH	155	362	455	1700	1700	1700	1700
Volume to Capacity	0.34	1.80	0.48	0.12	0.12	0.49	0.37
Queue Length 95th (ft)	35	1052	64	0	0	0	0
Control Delay (s)	39.8	396.6	20.0	0.0	0.0	0.0	0.0
Lane LOS	E	F	C				
Approach Delay (s)	369.7		7.1			0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	95.2		
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		

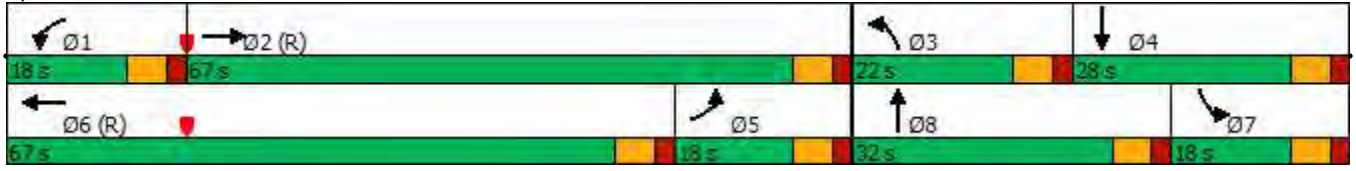
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	848	90	156	1425	53	149	861	527	62	253	180
Future Volume (vph)	122	848	90	156	1425	53	149	861	527	62	253	180
Satd. Flow (prot)	1770	3490	0	1770	3522	0	1770	3337	0	1770	3320	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1770	3522	0	1770	3337	0	1770	3320	0
Satd. Flow (RTOR)		11			4			86			114	
Lane Group Flow (vph)	133	1020	0	170	1607	0	162	1509	0	67	471	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	18.0	67.0		18.0	67.0		22.0	32.0		18.0	28.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.0	61.0		12.0	61.0		14.7	29.6		10.7	23.3	
Actuated g/C Ratio	0.09	0.45		0.09	0.45		0.11	0.22		0.08	0.17	
v/c Ratio	0.85	0.64		1.08	1.01		0.84	1.89		0.48	0.71	
Control Delay	100.7	30.6		102.7	54.3		92.4	432.9		70.5	46.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	100.7	30.6		102.7	54.3		92.4	432.9		70.5	46.4	
LOS	F	C		F	D		F	F		E	D	
Approach Delay		38.7			58.9			399.9			49.4	
Approach LOS		D			E			F			D	
Queue Length 50th (ft)	117	354		~171	~735		140	~1081		57	160	
Queue Length 95th (ft)	#235	428		m#217	m576		#251	#1223		107	223	
Internal Link Dist (ft)		996			1105			1257			271	
Turn Bay Length (ft)	100			130			150			100		
Base Capacity (vph)	157	1582		157	1593		209	799		157	666	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.85	0.64		1.08	1.01		0.78	1.89		0.43	0.71	

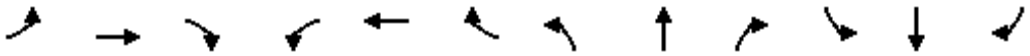
Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 51 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.89
Intersection Signal Delay: 164.3 Intersection LOS: F
Intersection Capacity Utilization 112.0% ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Brittmoore Rd & W Little York Rd



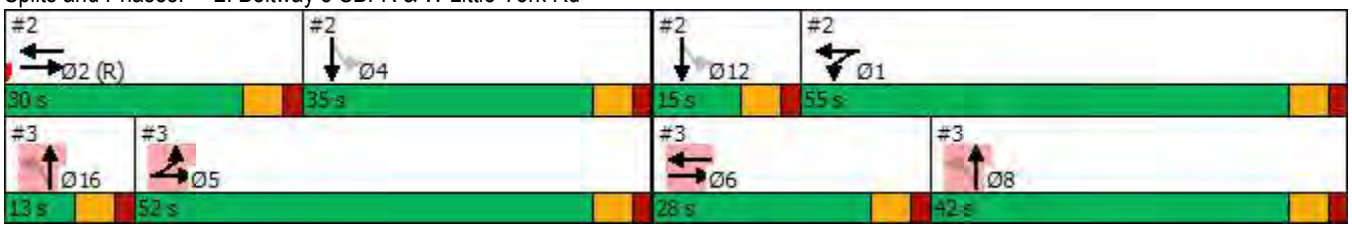


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1219	180	381	1086	0	0	0	0	45	2048	639
Future Volume (vph)	0	1219	180	381	1086	0	0	0	0	45	2048	639
Satd. Flow (prot)	0	4989	0	1770	3539	0	0	0	0	0	4902	0
Flt Permitted				0.950							0.999	
Satd. Flow (perm)	0	4989	0	1770	3539	0	0	0	0	0	4902	0
Satd. Flow (RTOR)		18									60	
Lane Group Flow (vph)	0	1521	0	414	1180	0	0	0	0	0	2970	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4 12	
Permitted Phases										4 12		
Total Split (s)		30.0		55.0								
Total Lost Time (s)		6.0		6.0								
Act Effct Green (s)		24.0		49.0	79.0						44.0	
Actuated g/C Ratio		0.18		0.36	0.59						0.33	
v/c Ratio		1.69		0.64	0.57						1.81	
Control Delay		342.6		15.3	18.6						396.5	
Queue Delay		1.5		62.5	53.3						0.0	
Total Delay		344.1		77.8	71.9						396.5	
LOS		F		E	E						F	
Approach Delay		344.1			73.4						396.5	
Approach LOS		F			E						F	
Queue Length 50th (ft)		~704		363	562						~1433	
Queue Length 95th (ft)		m#590		m222	m318						#1514	
Internal Link Dist (ft)		310			159			74			85	
Turn Bay Length (ft)												
Base Capacity (vph)		901		642	2070						1638	
Starvation Cap Reductn		0		422	1490						0	
Spillback Cap Reductn		208		0	0						2	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		2.19		1.88	2.03						1.82	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 2.48	
Intersection Signal Delay: 298.8	Intersection LOS: F
Intersection Capacity Utilization 142.0%	ICU Level of Service H
Analysis Period (min) 15	

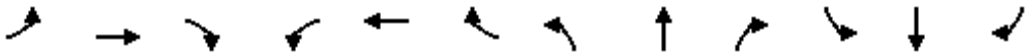
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Beltway 8 SBFR & W Little York Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	35.0	52.0	28.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	725	539	0	0	1280	71	187	3649	289	0	0	0
Future Volume (vph)	725	539	0	0	1280	71	187	3649	289	0	0	0
Satd. Flow (prot)	1770	3539	0	0	5045	0	1522	4753	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3539	0	0	5045	0	1522	4753	0	0	0	0
Satd. Flow (RTOR)					5			10				
Lane Group Flow (vph)	788	586	0	0	1468	0	183	4300	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16					
Total Split (s)	52.0				28.0							
Total Lost Time (s)	6.0				6.0							
Act Effct Green (s)	46.0	74.0			22.0		49.0	49.0				
Actuated g/C Ratio	0.34	0.55			0.16		0.36	0.36				
v/c Ratio	1.31	0.30			1.78		0.33	2.48				
Control Delay	162.3	8.0			387.2		33.3	690.9				
Queue Delay	11.4	57.3			4.6		0.0	0.0				
Total Delay	173.8	65.3			391.8		33.3	690.9				
LOS	F	E			F		C	F				
Approach Delay		127.5			391.8			664.1				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~909	276			~708		134	~2447				
Queue Length 95th (ft)	m432	m44			#806		210	#2498				
Internal Link Dist (ft)		159			353			68			75	
Turn Bay Length (ft)												
Base Capacity (vph)	603	1939			826		552	1731				
Starvation Cap Reductn	394	1564			0		0	0				
Spillback Cap Reductn	0	0			387		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	3.77	1.56			3.34		0.33	2.48				

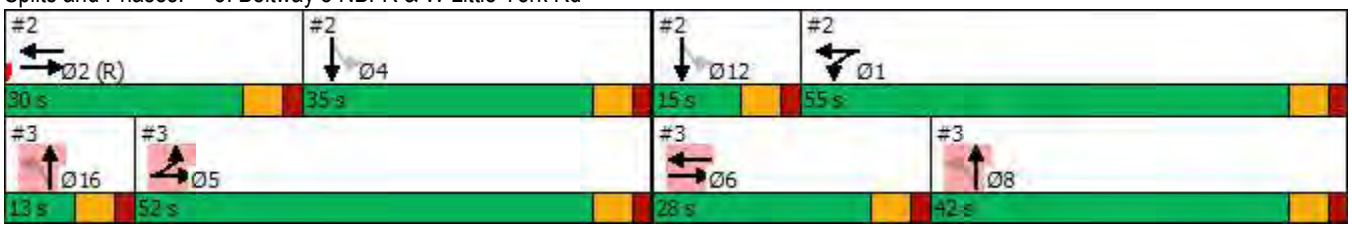
Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 2.48	
Intersection Signal Delay: 508.9	Intersection LOS: F
Intersection Capacity Utilization 142.0%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beltway 8 NBFR & W Little York Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	55.0	30.0	35.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

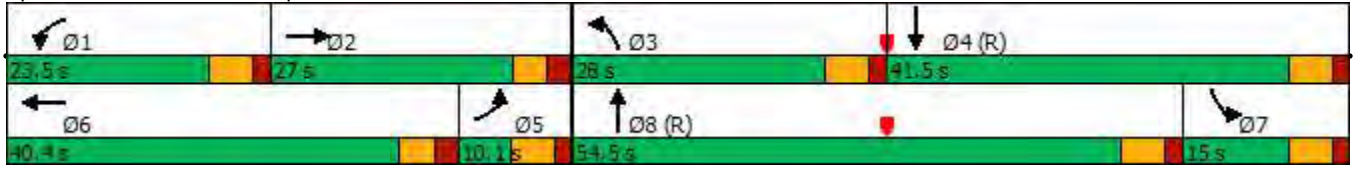
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	569	237	11	523	19	616	584	252	60	132	29
Future Volume (vph)	8	569	237	11	523	19	616	584	252	60	132	29
Satd. Flow (prot)	1770	3383	0	1770	3522	0	1770	3380	0	1770	3444	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3383	0	1770	3522	0	1770	3380	0	1770	3444	0
Satd. Flow (RTOR)		46			3			68			23	
Lane Group Flow (vph)	9	876	0	12	589	0	670	909	0	65	175	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	10.1	27.0		23.5	40.4		28.0	54.5		15.0	41.5	
Total Lost Time (s)	5.5	5.4		5.5	5.4		5.5	5.5		5.5	5.5	
Act Effct Green (s)	4.6	21.6		18.0	35.0		22.5	49.0		9.5	36.0	
Actuated g/C Ratio	0.04	0.18		0.15	0.29		0.19	0.41		0.08	0.30	
v/c Ratio	0.13	1.36		0.05	0.57		2.02	0.64		0.46	0.17	
Control Delay	60.2	206.7		44.4	38.6		484.1	12.7		64.2	27.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	60.2	206.7		44.4	38.6		484.1	12.7		64.2	27.3	
LOS	E	F		D	D		F	B		E	C	
Approach Delay		205.2			38.7			212.7			37.3	
Approach LOS		F			D			F			D	
Queue Length 50th (ft)	7	~455		8	203		~803	239		49	45	
Queue Length 95th (ft)	25	#587		27	263		m#767	m270		97	74	
Internal Link Dist (ft)		473			1258			257			824	
Turn Bay Length (ft)	320			150			160			150		
Base Capacity (vph)	67	646		265	1029		331	1420		140	1049	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	1.36		0.05	0.57		2.02	0.64		0.46	0.17	

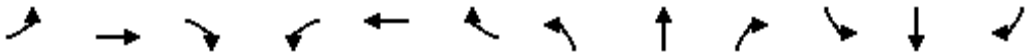
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.02
Intersection Signal Delay: 166.3 Intersection LOS: F
Intersection Capacity Utilization 79.4% ICU Level of Service D
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hempstead Rd & W Little York Rd



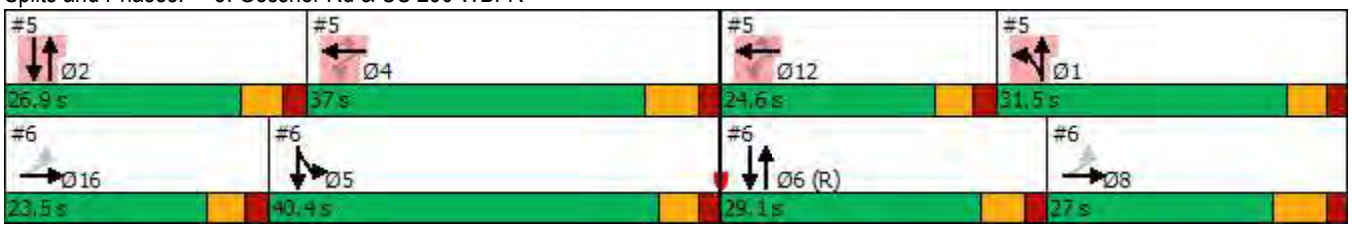


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	158	2602	336	662	713	0	0	511	28
Future Volume (vph)	0	0	0	158	2602	336	662	713	0	0	511	28
Satd. Flow (prot)	0	0	0	1610	3390	1583	1610	3353	0	0	5045	0
Flt Permitted				0.950			0.950	0.600				
Satd. Flow (perm)	0	0	0	1610	3390	1583	1610	2034	0	0	5045	0
Satd. Flow (RTOR)						142					4	
Lane Group Flow (vph)	0	0	0	155	2845	365	490	1005	0	0	585	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							31.5				26.9	
Total Lost Time (s)							5.5				5.9	
Act Effct Green (s)				54.9	54.9	54.9	26.0	47.4			21.0	
Actuated g/C Ratio				0.46	0.46	0.46	0.22	0.40			0.18	
v/c Ratio				0.21	1.84	0.46	1.41	1.31			0.66	
Control Delay				20.5	403.0	15.1	208.8	161.7			49.9	
Queue Delay				0.0	0.1	0.0	4.7	2.7			0.3	
Total Delay				20.5	403.2	15.1	213.4	164.5			50.3	
LOS				C	F	B	F	F			D	
Approach Delay					343.4			180.5			50.3	
Approach LOS					F			F			D	
Queue Length 50th (ft)				76	~1832	111	~575	~547			155	
Queue Length 95th (ft)				127	#1963	193	m#348	m314			198	
Internal Link Dist (ft)		78			52			183			787	
Turn Bay Length (ft)												
Base Capacity (vph)				736	1550	801	348	768			886	
Starvation Cap Reductn				0	0	0	110	248			0	
Spillback Cap Reductn				33	53	0	0	0			54	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.22	1.90	0.46	2.06	1.93			0.70	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.94			
Intersection Signal Delay: 267.2		Intersection LOS: F	
Intersection Capacity Utilization 87.1%		ICU Level of Service E	
Analysis Period (min) 15			

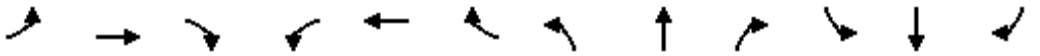
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Gessner Rd & US 290 WBFR



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	37.0	40.4	29.1	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

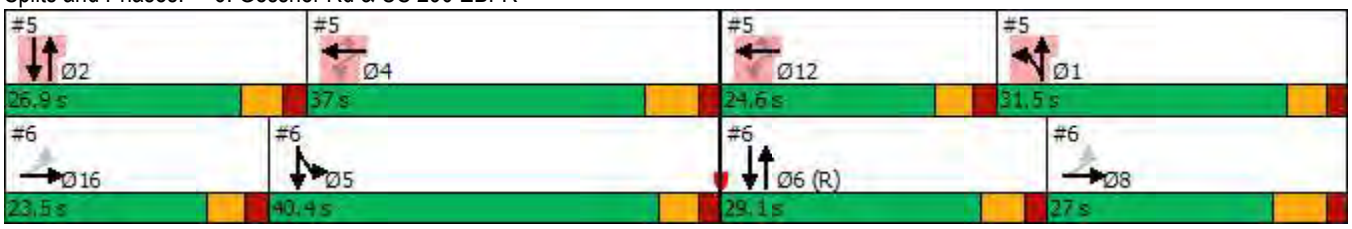


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	2040	137	0	0	0	0	1190	126	255	414	0
Future Volume (vph)	185	2040	137	0	0	0	0	1190	126	255	414	0
Satd. Flow (prot)	1610	3360	0	0	0	0	0	5014	0	1610	3377	0
Flt Permitted	0.950									0.950	0.744	
Satd. Flow (perm)	1610	3360	0	0	0	0	0	5014	0	1610	2522	0
Satd. Flow (RTOR)		6						13				
Lane Group Flow (vph)	181	2386	0	0	0	0	0	1430	0	235	492	0
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16											
Total Split (s)								29.1		40.4		
Total Lost Time (s)								5.9		5.5		
Act Effct Green (s)	43.8	43.8						23.2		34.9	58.5	
Actuated g/C Ratio	0.36	0.36						0.19		0.29	0.49	
v/c Ratio	0.31	1.94						1.46		0.50	0.44	
Control Delay	29.1	451.0						251.0		23.6	15.7	
Queue Delay	0.1	0.3						2.7		20.4	2.4	
Total Delay	29.2	451.3						253.6		44.0	18.1	
LOS	C	F						F		D	B	
Approach Delay		421.5						253.6			26.5	
Approach LOS		F						F			C	
Queue Length 50th (ft)	109	~1584						~563		180	171	
Queue Length 95th (ft)	175	#1725						#656		m285	m227	
Internal Link Dist (ft)		77			77			1992			183	
Turn Bay Length (ft)												
Base Capacity (vph)	587	1230						979		468	1124	
Starvation Cap Reductn	0	0						0		221	487	
Spillback Cap Reductn	53	84						356		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.34	2.08						2.30		0.95	0.77	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.94	
Intersection Signal Delay: 309.9	Intersection LOS: F
Intersection Capacity Utilization 87.1%	ICU Level of Service E
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Gessner Rd & US 290 EBFR



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	31.5	26.9	37.0	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	317	102	134	1426	575	155	627	67	161	401	98
Future Volume (vph)	10	317	102	134	1426	575	155	627	67	161	401	98
Satd. Flow (prot)	1770	3408	0	1770	3539	1583	1770	3486	0	1770	3433	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3408	0	1770	3539	1583	1770	3486	0	1770	3433	0
Satd. Flow (RTOR)		37				309		8			23	
Lane Group Flow (vph)	11	456	0	146	1550	625	168	755	0	175	543	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	6	2		1	5		3	7		8	4	
Permitted Phases						5						
Total Split (s)	11.0	41.4		23.6	54.0	54.0	21.0	29.0		26.0	34.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	6.0	6.0		6.0	6.0	
Act Effct Green (s)	5.2	31.4		13.8	48.5	48.5	14.8	31.8		20.0	37.0	
Actuated g/C Ratio	0.04	0.26		0.12	0.40	0.40	0.12	0.26		0.17	0.31	
v/c Ratio	0.14	0.50		0.72	1.08	0.76	0.77	0.81		0.59	0.51	
Control Delay	67.4	36.5		70.0	84.8	21.8	37.0	27.4		56.8	37.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	67.4	36.5		70.0	84.8	21.8	37.0	27.4		56.8	37.7	
LOS	E	D		E	F	C	D	C		E	D	
Approach Delay		37.2			66.9			29.2			42.4	
Approach LOS		D			E			C			D	
Queue Length 50th (ft)	8	172		110	~708	217	88	317		140	213	
Queue Length 95th (ft)	m16	m165		176	#848	377	m149	m#480		m186	m244	
Internal Link Dist (ft)		196			702			311			1992	
Turn Bay Length (ft)	100			100		175	200			120		
Base Capacity (vph)	81	1045		266	1430	823	236	929		295	1074	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.14	0.44		0.55	1.08	0.76	0.71	0.81		0.59	0.51	

Intersection Summary

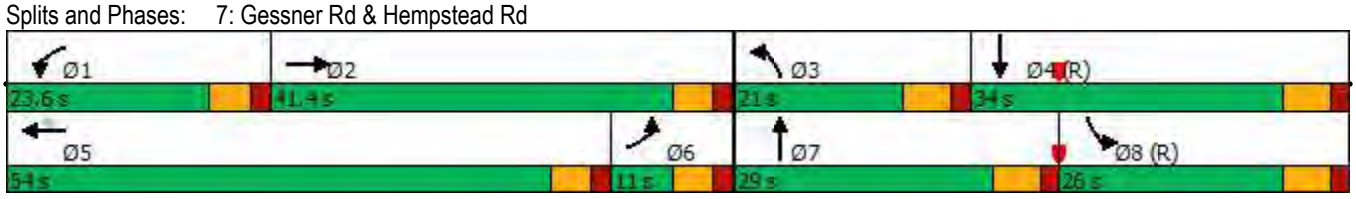
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:SBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 51.9 Intersection LOS: D
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Gessner Rd & Hempstead Rd



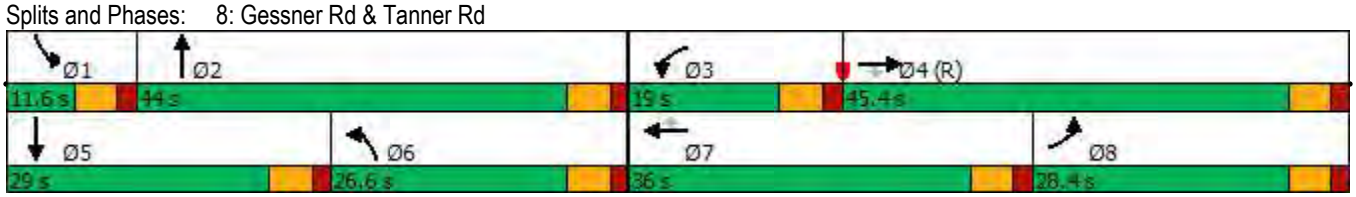
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	289	132	82	564	60	127	804	76	25	540	256
Future Volume (vph)	85	289	132	82	564	60	127	804	76	25	540	256
Satd. Flow (prot)	1652	1863	1583	1652	1863	1583	1652	3493	0	1652	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1652	1863	1583	1652	1863	1583	1652	3493	0	1652	3369	0
Satd. Flow (RTOR)			176			176		9			59	
Lane Group Flow (vph)	92	314	143	89	613	65	138	957	0	27	865	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases			4			7						
Total Split (s)	28.4	45.4	45.4	19.0	36.0	36.0	26.6	44.0		11.6	29.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		5.6	5.6	
Act Effct Green (s)	22.8	39.8	39.8	13.4	30.4	30.4	21.0	38.4		6.0	23.4	
Actuated g/C Ratio	0.19	0.33	0.33	0.11	0.25	0.25	0.18	0.32		0.05	0.20	
v/c Ratio	0.29	0.51	0.22	0.48	1.30	0.12	0.48	0.85		0.33	1.23	
Control Delay	44.7	35.8	2.8	59.6	187.7	0.5	50.8	46.4		58.0	148.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	44.7	35.8	2.8	59.6	187.7	0.5	50.8	46.4		58.0	148.6	
LOS	D	D	A	E	F	A	D	D		E	F	
Approach Delay		28.7			156.9			47.0			145.9	
Approach LOS		C			F			D			F	
Queue Length 50th (ft)	62	195	0	66	~608	0	97	361		20	~416	
Queue Length 95th (ft)	112	285	27	121	#832	0	164	446		m44	#559	
Internal Link Dist (ft)		115			125			620			3415	
Turn Bay Length (ft)			50			50	200			200		
Base Capacity (vph)	313	617	642	184	471	532	289	1123		82	704	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.29	0.51	0.22	0.48	1.30	0.12	0.48	0.85		0.33	1.23	

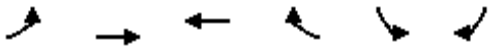
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 4:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.30
Intersection Signal Delay: 96.2 Intersection LOS: F
Intersection Capacity Utilization 84.3% ICU Level of Service E
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Gessner Rd & Tanner Rd

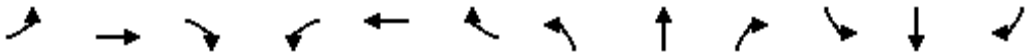




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	499	984	3	0	21
Future Volume (Veh/h)	0	499	984	3	0	21
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	542	1070	3	0	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1141				
pX, platoon unblocked					0.88	
vC, conflicting volume	1073				1614	1072
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1073				1629	1072
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	91
cM capacity (veh/h)	650				98	268

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	542	1073	23
Volume Left	0	0	0
Volume Right	0	3	23
cSH	650	1700	268
Volume to Capacity	0.00	0.63	0.09
Queue Length 95th (ft)	0	0	7
Control Delay (s)	0.0	0.0	19.7
Lane LOS			C
Approach Delay (s)	0.0	0.0	19.7
Approach LOS			C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		

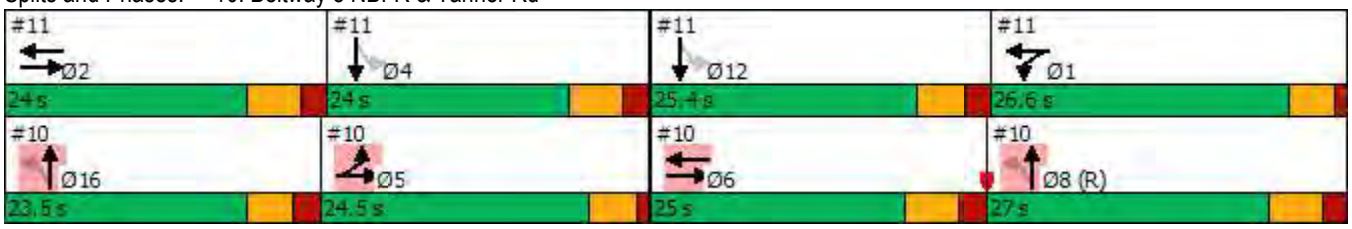


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	377	0	0	957	131	603	1789	209	0	0	0
Future Volume (vph)	245	377	0	0	957	131	603	1789	209	0	0	0
Satd. Flow (prot)	1610	3373	0	0	4994	0	0	4969	0	0	0	0
Flt Permitted	0.950	0.644						0.989				
Satd. Flow (perm)	1610	2183	0	0	4994	0	0	4969	0	0	0	0
Satd. Flow (RTOR)					22			18				
Lane Group Flow (vph)	218	458	0	0	1182	0	0	2827	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	24.5				25.0							
Total Lost Time (s)	4.5				6.0							
Act Effct Green (s)	20.0	37.5			19.0			44.5				
Actuated g/C Ratio	0.20	0.38			0.19			0.44				
v/c Ratio	0.68	0.66			1.22			1.27				
Control Delay	31.2	20.2			145.4			153.5				
Queue Delay	1.9	0.4			1.8			0.2				
Total Delay	33.0	20.7			147.2			153.8				
LOS	C	C			F			F				
Approach Delay		24.7			147.2			153.8				
Approach LOS		C			F			F				
Queue Length 50th (ft)	157	152			~339			~842				
Queue Length 95th (ft)	m#242	203			#432			#936				
Internal Link Dist (ft)		223			174			89			91	
Turn Bay Length (ft)												
Base Capacity (vph)	322	696			966			2221				
Starvation Cap Reductn	31	44			0			0				
Spillback Cap Reductn	0	0			269			191				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.75	0.70			1.70			1.39				

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.27	
Intersection Signal Delay: 133.5	Intersection LOS: F
Intersection Capacity Utilization 123.3%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Beltway 8 NBFR & Tanner Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	26.6	24.0	24.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	537	272	293	1267	0	0	0	0	85	949	388
Future Volume (vph)	0	537	272	293	1267	0	0	0	0	85	949	388
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	0	4862	0
Flt Permitted				0.950							0.997	
Satd. Flow (perm)	0	5085	1583	1770	3539	0	0	0	0	0	4862	0
Satd. Flow (RTOR)			249								16	
Lane Group Flow (vph)	0	584	296	318	1377	0	0	0	0	0	1546	0
Turn Type		NA	Free	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases			Free							4 12		
Total Split (s)		24.0		26.6								
Total Lost Time (s)		6.0		4.5								
Act Effct Green (s)		18.0	100.0	22.8	45.3						42.7	
Actuated g/C Ratio		0.18	1.00	0.23	0.45						0.43	
v/c Ratio		0.64	0.19	0.79	0.86						0.74	
Control Delay		41.6	0.3	31.7	20.7						26.3	
Queue Delay		0.1	0.0	25.4	49.0						0.1	
Total Delay		41.7	0.3	57.1	69.7						26.5	
LOS		D	A	E	E						C	
Approach Delay		27.8			67.3						26.5	
Approach LOS		C			E						C	
Queue Length 50th (ft)		127	0	197	424						288	
Queue Length 95th (ft)		167	0	m154	m310						345	
Internal Link Dist (ft)		1818			223			109			83	
Turn Bay Length (ft)			100									
Base Capacity (vph)		915	1583	404	1604						2119	
Starvation Cap Reductn		0	0	89	727						0	
Spillback Cap Reductn		24	0	0	0						66	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		0.66	0.19	1.01	1.57						0.75	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 43.5 — Intersection LOS: D
Intersection Capacity Utilization 123.3% — ICU Level of Service H
Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Beltway 8 SBFR & Tanner Rd

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	24.0	24.5	25.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	496	58	74	1272	226	327	1092	198	92	336	120
Future Volume (vph)	149	496	58	74	1272	226	327	1092	198	92	336	120
Satd. Flow (prot)	1593	3134	0	1593	3112	0	1593	3112	0	1593	3061	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1593	3134	0	1593	3112	0	1593	3112	0	1593	3061	0
Satd. Flow (RTOR)		10			17			17			35	
Lane Group Flow (vph)	162	602	0	80	1629	0	355	1402	0	100	495	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Total Split (s)	15.0	50.0		20.0	55.0		25.0	53.0		12.0	40.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	9.0	38.6		21.7	49.0		19.0	47.0		6.0	34.0	
Actuated g/C Ratio	0.07	0.29		0.16	0.36		0.14	0.35		0.04	0.25	
v/c Ratio	1.53	0.67		0.31	1.43		1.58	1.28		1.43	0.62	
Control Delay	319.9	47.9		52.5	231.5		320.4	170.4		301.0	45.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	319.9	47.9		52.5	231.5		320.4	170.4		301.0	45.4	
LOS	F	D		D	F		F	F		F	D	
Approach Delay		105.6			223.1			200.7			88.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~198	263		59	~1015		~442	~817		~118	190	
Queue Length 95th (ft)	#346	311		116	#1157		#641	#960		#240	251	
Internal Link Dist (ft)		951			1818			1813			1031	
Turn Bay Length (ft)	120			120			200			150		
Base Capacity (vph)	106	1121		275	1140		224	1094		70	797	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.53	0.54		0.29	1.43		1.58	1.28		1.43	0.62	

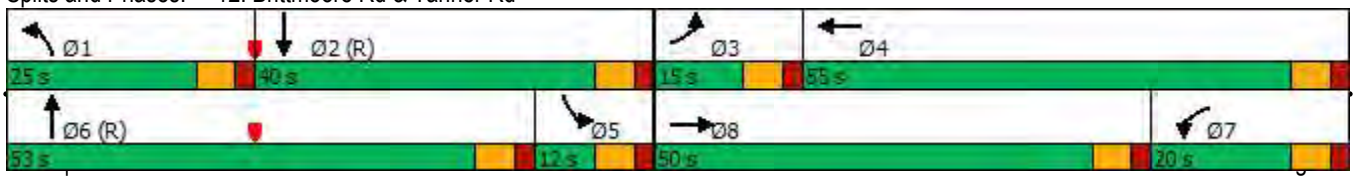
Intersection Summary

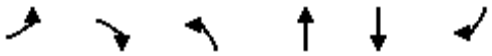
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 29 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 179.7 Intersection LOS: F
Intersection Capacity Utilization 122.5% ICU Level of Service H
Analysis Period (min) 15

~ 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.

Splits and Phases: 12: Brittmoore Rd & Tanner Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	184	201	349	1323	428	55
Future Volume (Veh/h)	184	201	349	1323	428	55
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	200	218	379	1438	465	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1972	262	525			
vC1, stage 1 conf vol	495					
vC2, stage 2 conf vol	1477					
vCu, unblocked vol	1972	262	525			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	70	63			
cM capacity (veh/h)	108	736	1038			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	200	218	379	719	719	310	215
Volume Left	200	0	379	0	0	0	0
Volume Right	0	218	0	0	0	0	60
cSH	108	736	1038	1700	1700	1700	1700
Volume to Capacity	1.86	0.30	0.37	0.42	0.42	0.18	0.13
Queue Length 95th (ft)	404	31	42	0	0	0	0
Control Delay (s)	485.6	11.9	10.5	0.0	0.0	0.0	0.0
Lane LOS	F	B	B				
Approach Delay (s)	238.6		2.2			0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	37.6		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix D
Capacity Analysis – 2068 Background Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	3435	352	681	1272	187	89	402	331	270	2334	190
Future Volume (vph)	169	3435	352	681	1272	187	89	402	331	270	2334	190
Satd. Flow (prot)	1770	3490	0	1770	3472	0	1770	3299	0	1770	3500	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1770	3472	0	1770	3299	0	1770	3500	0
Satd. Flow (RTOR)		10			16			137			5	
Lane Group Flow (vph)	184	4117	0	740	1586	0	97	797	0	293	2744	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	18.0	67.0		18.0	67.0		22.0	32.0		18.0	28.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.0	61.0		12.0	61.0		11.6	26.0		12.0	26.4	
Actuated g/C Ratio	0.09	0.45		0.09	0.45		0.09	0.19		0.09	0.20	
v/c Ratio	1.17	2.60		4.71	1.01		0.64	1.07		1.87	3.99	
Control Delay	177.4	742.5		1685.1	48.2		77.7	95.6		445.7	1365.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	177.4	742.5		1685.1	48.2		77.7	95.6		445.7	1365.5	
LOS	F	F		F	D		E	F		F	F	
Approach Delay		718.4			569.0			93.6			1276.8	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~192	~3220		~1241	~691		84	~352		~390	~2328	
Queue Length 95th (ft)	#346	#3296		m#899	m367		141	#484		#574	#2505	
Internal Link Dist (ft)		996			1105			1257			271	
Turn Bay Length (ft)	100			130			150			100		
Base Capacity (vph)	157	1582		157	1577		209	745		157	687	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.17	2.60		4.71	1.01		0.46	1.07		1.87	3.99	

Intersection Summary

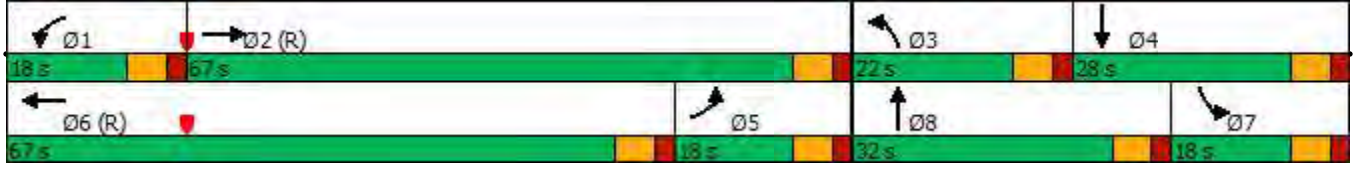
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 51 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.71
Intersection Signal Delay: 793.2 Intersection LOS: F
Intersection Capacity Utilization 239.4% ICU Level of Service H
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Brittmoore Rd & W Little York Rd

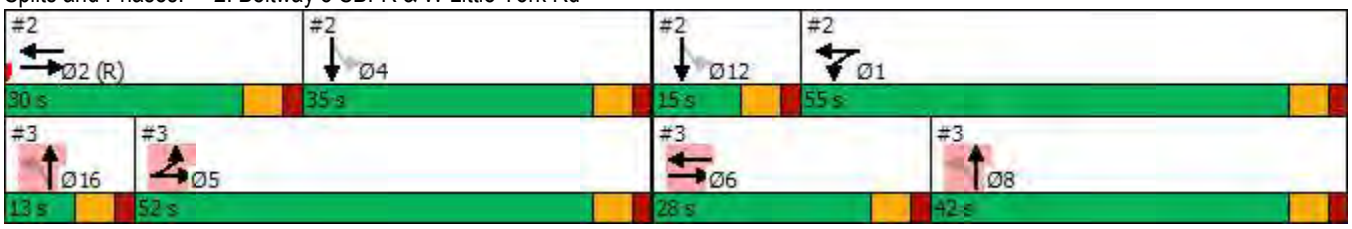


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3504	704	662	1309	0	0	0	0	306	8643	932
Future Volume (vph)	0	3504	704	662	1309	0	0	0	0	306	8643	932
Satd. Flow (prot)	0	4958	0	1770	3539	0	0	0	0	0	5004	0
Flt Permitted				0.950							0.998	
Satd. Flow (perm)	0	4958	0	1770	3539	0	0	0	0	0	5004	0
Satd. Flow (RTOR)		27									14	
Lane Group Flow (vph)	0	4574	0	720	1423	0	0	0	0	0	10741	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4 12	
Permitted Phases										4 12		
Total Split (s)		30.0		55.0								
Total Lost Time (s)		6.0		6.0								
Act Effct Green (s)		24.0		49.0	79.0						44.0	
Actuated g/C Ratio		0.18		0.36	0.59						0.33	
v/c Ratio		5.07		1.12	0.69						6.55	
Control Delay		1840.8		81.3	18.0						2507.3	
Queue Delay		4.7		7.8	51.9						0.0	
Total Delay		1845.5		89.2	69.8						2507.3	
LOS		F		F	E						F	
Approach Delay		1845.5			76.3						2507.3	
Approach LOS		F			E						F	
Queue Length 50th (ft)		~2805		~732	635						~6702	
Queue Length 95th (ft)		m#1129		m368	m325						#6511	
Internal Link Dist (ft)		310			159			74			85	
Turn Bay Length (ft)												
Base Capacity (vph)		903		642	2070						1640	
Starvation Cap Reductn		0		362	1386						0	
Spillback Cap Reductn		448		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		10.05		2.57	2.08						6.55	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 6.55	
Intersection Signal Delay: 2035.5	Intersection LOS: F
Intersection Capacity Utilization 408.1%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Beltway 8 SBFR & W Little York Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	35.0	52.0	28.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1318	2492	0	0	1494	103	477	4038	1295	0	0	0
Future Volume (vph)	1318	2492	0	0	1494	103	477	4038	1295	0	0	0
Satd. Flow (prot)	1770	3539	0	0	5034	0	1522	4633	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3539	0	0	5034	0	1522	4633	0	0	0	0
Satd. Flow (RTOR)					1			1				
Lane Group Flow (vph)	1433	2709	0	0	1736	0	466	5849	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16					
Total Split (s)	52.0				28.0							
Total Lost Time (s)	6.0				6.0							
Act Effct Green (s)	46.0	74.0			22.0		49.0	49.0				
Actuated g/C Ratio	0.34	0.55			0.16		0.36	0.36				
v/c Ratio	2.38	1.40			2.11		0.84	3.48				
Control Delay	638.4	206.9			533.2		54.9	1132.2				
Queue Delay	11.9	8.5			4.8		0.0	0.0				
Total Delay	650.3	215.4			538.0		54.9	1132.2				
LOS	F	F			F		D	F				
Approach Delay		365.8			538.0			1052.7				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~2112	~1716			~892		433	~3577				
Queue Length 95th (ft)	m203	m124			#990		#651	#3577				
Internal Link Dist (ft)		159			353			68			75	
Turn Bay Length (ft)												
Base Capacity (vph)	603	1939			821		552	1682				
Starvation Cap Reductn	400	1521			0		0	0				
Spillback Cap Reductn	0	0			393		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	7.06	6.48			4.06		0.84	3.48				

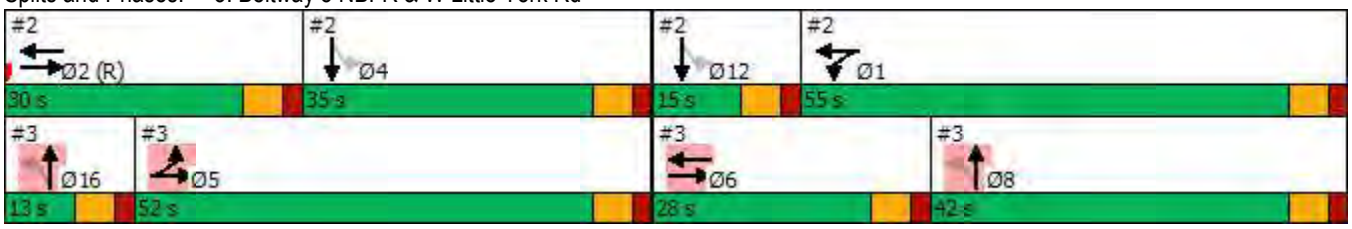
Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 6.55	
Intersection Signal Delay: 746.1	Intersection LOS: F
Intersection Capacity Utilization 409.1%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beltway 8 NBFR & W Little York Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	55.0	30.0	35.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

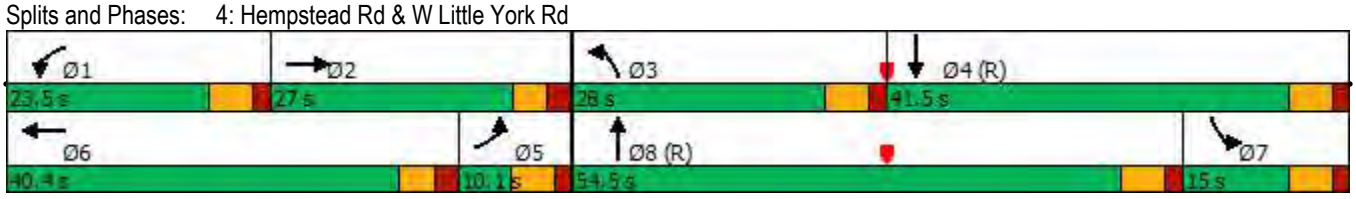
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	1807	1117	16	1140	73	432	311	9	94	1135	101
Future Volume (vph)	94	1807	1117	16	1140	73	432	311	9	94	1135	101
Satd. Flow (prot)	1770	3337	0	1770	3507	0	1770	3525	0	1770	3497	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3337	0	1770	3507	0	1770	3525	0	1770	3497	0
Satd. Flow (RTOR)		97			5			3			8	
Lane Group Flow (vph)	102	3178	0	17	1318	0	470	348	0	102	1344	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	10.1	27.0		23.5	40.4		28.0	54.5		15.0	41.5	
Total Lost Time (s)	5.5	5.4		5.5	5.4		5.5	5.5		5.5	5.5	
Act Effct Green (s)	4.6	21.6		18.0	35.0		22.5	49.0		9.5	36.0	
Actuated g/C Ratio	0.04	0.18		0.15	0.29		0.19	0.41		0.08	0.30	
v/c Ratio	1.52	4.67		0.06	1.28		1.42	0.24		0.73	1.28	
Control Delay	335.5	1668.5		44.6	171.5		224.0	13.0		82.7	167.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	335.5	1668.5		44.6	171.5		224.0	13.0		82.7	167.0	
LOS	F	F		D	F		F	B		F	F	
Approach Delay		1627.0			169.9			134.3			161.1	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~110	~2408		11	~685		~496	110		79	~694	
Queue Length 95th (ft)	#226	#2528		34	#825		m#660	m119		#168	#835	
Internal Link Dist (ft)		473			1258			257			824	
Turn Bay Length (ft)	320			150			160			150		
Base Capacity (vph)	67	680		265	1026		331	1441		140	1054	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.52	4.67		0.06	1.28		1.42	0.24		0.73	1.28	

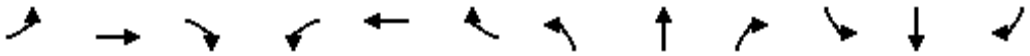
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.67
Intersection Signal Delay: 858.6 — Intersection LOS: F
Intersection Capacity Utilization 157.9% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hempstead Rd & W Little York Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	674	2414	254	571	1106	0	0	2679	21
Future Volume (vph)	0	0	0	674	2414	254	571	1106	0	0	2679	21
Satd. Flow (prot)	0	0	0	1610	3387	1583	1610	3383	0	0	5080	0
Flt Permitted				0.950	0.999		0.950	0.578				
Satd. Flow (perm)	0	0	0	1610	3387	1583	1610	1960	0	0	5080	0
Satd. Flow (RTOR)						113					1	
Lane Group Flow (vph)	0	0	0	660	2697	276	559	1264	0	0	2935	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							31.5				26.9	
Total Lost Time (s)							5.5				5.9	
Act Effct Green (s)				54.9	54.9	54.9	26.0	47.4			21.0	
Actuated g/C Ratio				0.46	0.46	0.46	0.22	0.40			0.18	
v/c Ratio				0.90	1.74	0.35	1.61	1.66			3.30	
Control Delay				46.8	361.6	13.4	298.1	320.5			1055.8	
Queue Delay				9.0	0.2	0.0	3.9	2.2			7.5	
Total Delay				55.8	361.8	13.4	302.0	322.7			1063.3	
LOS				E	F	B	F	F			F	
Approach Delay					279.8			316.3			1063.3	
Approach LOS					F			F			F	
Queue Length 50th (ft)				504	~1702	75	~687	~778			~1490	
Queue Length 95th (ft)				#768	#1836	140	m#392	m#413			#1578	
Internal Link Dist (ft)		78			52			183			787	
Turn Bay Length (ft)												
Base Capacity (vph)				736	1549	785	348	761			889	
Starvation Cap Reductn				0	0	0	96	212			0	
Spillback Cap Reductn				62	98	0	0	0			549	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.98	1.86	0.35	2.22	2.30			8.63	

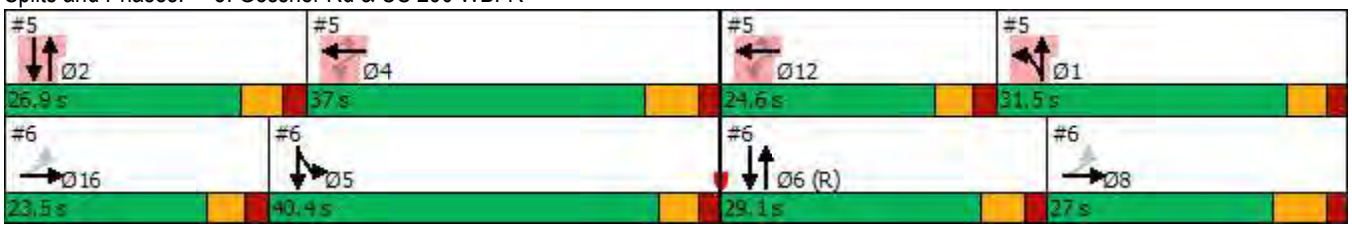
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 9.49	
Intersection Signal Delay: 561.8	Intersection LOS: F
Intersection Capacity Utilization 361.0%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

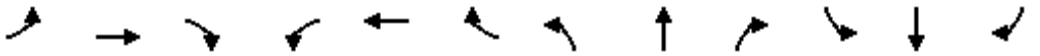
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Gessner Rd & US 290 WBFR



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	37.0	40.4	29.1	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

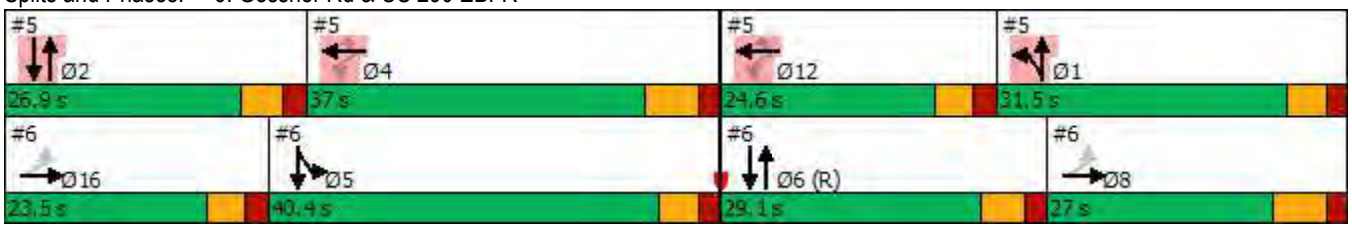


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	404	9950	742	0	0	0	0	1272	281	1080	2273	0
Future Volume (vph)	404	9950	742	0	0	0	0	1272	281	1080	2273	0
Satd. Flow (prot)	1610	3356	0	0	0	0	0	4948	0	1610	3383	0
Flt Permitted	0.950									0.950	0.510	
Satd. Flow (perm)	1610	3356	0	0	0	0	0	4948	0	1610	1729	0
Satd. Flow (RTOR)		7						2				
Lane Group Flow (vph)	395	11666	0	0	0	0	0	1688	0	1057	2588	0
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16											
Total Split (s)								29.1		40.4		
Total Lost Time (s)								5.9		5.5		
Act Effct Green (s)	43.8	43.8						23.2		34.9	34.9	
Actuated g/C Ratio	0.36	0.36						0.19		0.29	0.29	
v/c Ratio	0.67	9.49						1.76		2.26	2.63	
Control Delay	38.9	3829.2						378.2		587.3	753.2	
Queue Delay	0.9	0.3						4.2		5.0	2.8	
Total Delay	39.8	3829.5						382.4		592.3	756.0	
LOS	D	F						F		F	F	
Approach Delay		3705.4						382.4			708.5	
Approach LOS		F						F			F	
Queue Length 50th (ft)	280	~9942						~732		~1493	~1902	
Queue Length 95th (ft)	407	#9680						m#532		m#447	m#598	
Internal Link Dist (ft)		77			77			1992			183	
Turn Bay Length (ft)												
Base Capacity (vph)	587	1229						958		468	983	
Starvation Cap Reductn	0	0						0		179	368	
Spillback Cap Reductn	52	83						455		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.74	10.18						3.36		3.66	4.21	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 9.49	
Intersection Signal Delay: 2754.9	Intersection LOS: F
Intersection Capacity Utilization 361.0%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Gessner Rd & US 290 EBFR



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	31.5	26.9	37.0	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	2040	516	359	847	576	23	847	281	923	1894	80
Future Volume (vph)	148	2040	516	359	847	576	23	847	281	923	1894	80
Satd. Flow (prot)	1770	3433	0	1770	3539	1583	1770	3408	0	1770	3518	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3433	0	1770	3539	1583	1770	3408	0	1770	3518	0
Satd. Flow (RTOR)		27				515		33			3	
Lane Group Flow (vph)	161	2778	0	390	921	626	25	1226	0	1003	2146	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	6	2		1	5		3	7		8	4	
Permitted Phases						5						
Total Split (s)	11.0	41.4		23.6	54.0	54.0	21.0	29.0		26.0	34.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.2	35.9		18.1	41.8	41.8	6.4	23.0		20.0	41.1	
Actuated g/C Ratio	0.10	0.30		0.15	0.35	0.35	0.05	0.19		0.17	0.34	
v/c Ratio	0.90	2.66		1.47	0.75	0.71	0.27	1.81		3.40	1.78	
Control Delay	56.6	765.3		265.9	38.1	10.3	30.7	385.9		1097.6	378.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	56.6	765.3		265.9	38.1	10.3	30.7	385.9		1097.6	378.6	
LOS	E	F		F	D	B	C	F		F	F	
Approach Delay		726.5			75.0			378.8			607.6	
Approach LOS		F			E			F			F	
Queue Length 50th (ft)	127	~1953		~413	325	59	16	~765		~1426	~1407	
Queue Length 95th (ft)	m#110	m#971		#608	369	180	m14	m#625		m#276	m293	
Internal Link Dist (ft)		196			702			311			1992	
Turn Bay Length (ft)	100			100		175	200			120		
Base Capacity (vph)	179	1045		266	1430	946	221	679		295	1205	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.90	2.66		1.47	0.64	0.66	0.11	1.81		3.40	1.78	

Intersection Summary

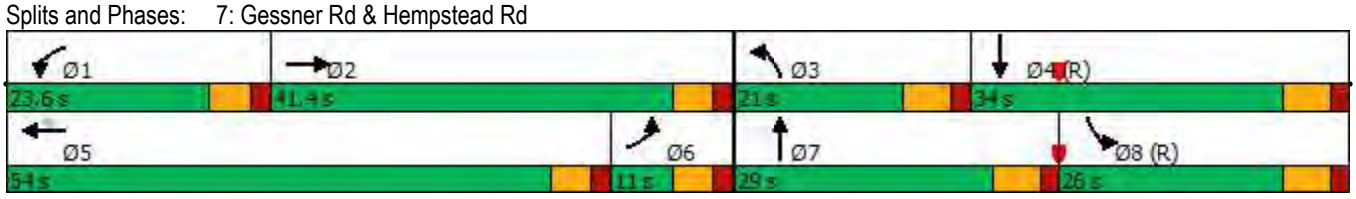
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:SBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.40
Intersection Signal Delay: 503.2 — Intersection LOS: F
Intersection Capacity Utilization 195.4% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Gessner Rd & Hempstead Rd



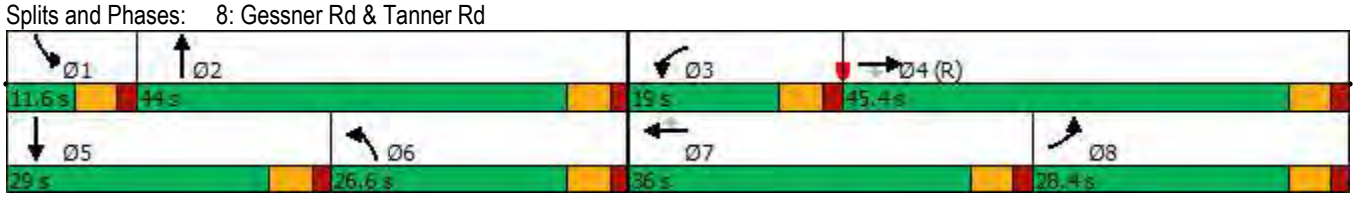
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	1391	276	226	669	30	151	1051	215	98	2284	471
Future Volume (vph)	203	1391	276	226	669	30	151	1051	215	98	2284	471
Satd. Flow (prot)	1652	1863	1583	1652	1863	1583	1652	3447	0	1652	3447	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1652	1863	1583	1652	1863	1583	1652	3447	0	1652	3447	0
Satd. Flow (RTOR)			176			176		21			18	
Lane Group Flow (vph)	221	1512	300	246	727	33	164	1376	0	107	2995	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases			4			7						
Total Split (s)	28.4	45.4	45.4	19.0	36.0	36.0	26.6	44.0		11.6	29.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		5.6	5.6	
Act Effct Green (s)	22.8	39.8	39.8	13.4	30.4	30.4	21.0	38.4		6.0	23.4	
Actuated g/C Ratio	0.19	0.33	0.33	0.11	0.25	0.25	0.18	0.32		0.05	0.20	
v/c Ratio	0.71	2.45	0.47	1.34	1.54	0.06	0.57	1.23		1.30	4.37	
Control Delay	58.9	678.8	15.2	224.8	287.5	0.2	54.0	147.8		183.4	1527.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	58.9	678.8	15.2	224.8	287.5	0.2	54.0	147.8		183.4	1527.8	
LOS	E	F	B	F	F	A	D	F		F	F	
Approach Delay		513.5			262.7			137.8			1481.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	162	~1939	70	~248	~791	0	118	~691		~106	~2321	
Queue Length 95th (ft)	#263	#2203	153	#412	#1027	0	191	#831		m49	m#1160	
Internal Link Dist (ft)		115			125			620			3415	
Turn Bay Length (ft)			50			50	200			200		
Base Capacity (vph)	313	617	642	184	471	532	289	1117		82	686	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.71	2.45	0.47	1.34	1.54	0.06	0.57	1.23		1.30	4.37	

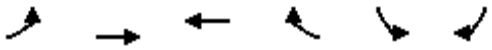
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 4:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.37
Intersection Signal Delay: 796.2 — Intersection LOS: F
Intersection Capacity Utilization 190.9% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Gessner Rd & Tanner Rd

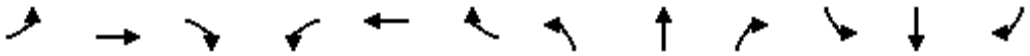




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	1978	1195	0	0	14
Future Volume (Veh/h)	7	1978	1195	0	0	14
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	2150	1299	0	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1141				
pX, platoon unblocked					0.55	
vC, conflicting volume	1299				3465	1299
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1299				5057	1299
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				100	92
cM capacity (veh/h)	533				0	197

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	2158	1299	15
Volume Left	8	0	0
Volume Right	0	0	15
cSH	533	1700	197
Volume to Capacity	0.02	0.76	0.08
Queue Length 95th (ft)	1	0	6
Control Delay (s)	0.0	0.0	24.7
Lane LOS	A		C
Approach Delay (s)	0.0	0.0	24.7
Approach LOS			C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		119.7%	ICU Level of Service H
Analysis Period (min)		15	

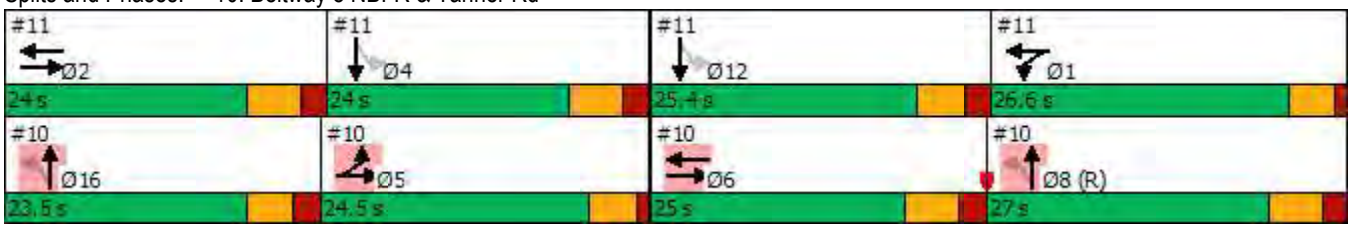


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	868	1530	0	0	1131	199	651	1775	742	0	0	0
Future Volume (vph)	868	1530	0	0	1131	199	651	1775	742	0	0	0
Satd. Flow (prot)	1610	3380	0	0	4973	0	0	4858	0	0	0	0
Flt Permitted	0.950	0.525						0.990				
Satd. Flow (perm)	1610	1780	0	0	4973	0	0	4858	0	0	0	0
Satd. Flow (RTOR)					2			99				
Lane Group Flow (vph)	839	1767	0	0	1445	0	0	3444	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	24.5				25.0							
Total Lost Time (s)	4.5				6.0							
Act Effct Green (s)	20.0	18.5			19.0			44.5				
Actuated g/C Ratio	0.20	0.18			0.19			0.44				
v/c Ratio	2.61	2.83			1.53			1.55				
Control Delay	740.9	839.2			273.6			276.4				
Queue Delay	1.2	0.6			2.1			0.2				
Total Delay	742.1	839.8			275.7			276.6				
LOS	F	F			F			F				
Approach Delay		808.3			275.7			276.6				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~1027	~1102			~479			~1139				
Queue Length 95th (ft)	m#267	m#301			#575			#1227				
Internal Link Dist (ft)		223			174			89			91	
Turn Bay Length (ft)												
Base Capacity (vph)	322	625			946			2216				
Starvation Cap Reductn	31	47			0			0				
Spillback Cap Reductn	0	0			281			191				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	2.88	3.06			2.17			1.70				

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.83	
Intersection Signal Delay: 461.3	Intersection LOS: F
Intersection Capacity Utilization 238.5%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Beltway 8 NBFR & Tanner Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	26.6	24.0	24.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2092	2876	523	1259	0	0	0	0	306	4169	429
Future Volume (vph)	0	2092	2876	523	1259	0	0	0	0	306	4169	429
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	0	5004	0
Flt Permitted				0.950							0.997	
Satd. Flow (perm)	0	5085	1583	1770	3539	0	0	0	0	0	5004	0
Satd. Flow (RTOR)			269								17	
Lane Group Flow (vph)	0	2274	3126	568	1368	0	0	0	0	0	5331	0
Turn Type		NA	Free	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases			Free							4 12		
Total Split (s)		24.0		26.6								
Total Lost Time (s)		6.0		4.5								
Act Effct Green (s)		18.0	100.0	22.1	44.6						43.4	
Actuated g/C Ratio		0.18	1.00	0.22	0.45						0.43	
v/c Ratio		2.49	1.97	1.45	0.87						2.44	
Control Delay		692.7	455.9	232.3	22.0						670.5	
Queue Delay		4.8	0.0	2.7	49.5						0.3	
Total Delay		697.5	455.9	234.9	71.4						670.8	
LOS		F	F	F	E						F	
Approach Delay		557.6			119.4						670.8	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~887	~2058	~505	430						~2101	
Queue Length 95th (ft)		#983	#2304	m239	m242						#2158	
Internal Link Dist (ft)		1818			223			109			83	
Turn Bay Length (ft)			100									
Base Capacity (vph)		915	1583	391	1578						2181	
Starvation Cap Reductn		0	0	85	797						0	
Spillback Cap Reductn		458	0	0	0						204	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		4.98	1.97	1.86	1.75						2.70	

Intersection Summary

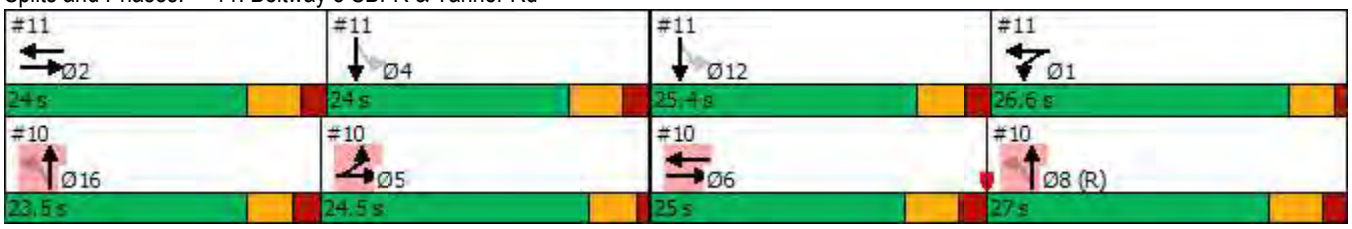
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.83
Intersection Signal Delay: 538.3 Intersection LOS: F
Intersection Capacity Utilization 238.5% ICU Level of Service H
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Beltway 8 SBFR & Tanner Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	24.0	24.5	25.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	4344	644	292	891	281	171	562	244	576	2451	254
Future Volume (vph)	251	4344	644	292	891	281	171	562	244	576	2451	254
Satd. Flow (prot)	1593	3125	0	1593	3071	0	1593	3042	0	1593	3141	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1593	3125	0	1593	3071	0	1593	3042	0	1593	3141	0
Satd. Flow (RTOR)		13			35			55			8	
Lane Group Flow (vph)	273	5422	0	317	1273	0	186	876	0	626	2940	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Total Split (s)	15.0	50.0		20.0	55.0		25.0	53.0		12.0	40.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	9.0	44.0		14.0	49.0		17.8	47.0		6.0	35.2	
Actuated g/C Ratio	0.07	0.33		0.10	0.36		0.13	0.35		0.04	0.26	
v/c Ratio	2.58	5.28		1.92	1.12		0.89	0.80		8.94	3.57	
Control Delay	759.5	1938.7		467.5	105.2		95.3	43.8		3609.8	1175.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	759.5	1938.7		467.5	105.2		95.3	43.8		3609.8	1175.0	
LOS	F	F		F	F		F	D		F	F	
Approach Delay		1882.2			177.4			52.8			1602.4	
Approach LOS		F			F			D			F	
Queue Length 50th (ft)	~400	~4761		~427	~665		161	344		~1075	~2462	
Queue Length 95th (ft)	#581	#4781		#616	#806		#291	429		#1310	#2580	
Internal Link Dist (ft)		951			1818			1813			1031	
Turn Bay Length (ft)	120			120			200			150		
Base Capacity (vph)	106	1027		165	1136		224	1094		70	824	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	2.58	5.28		1.92	1.12		0.83	0.80		8.94	3.57	

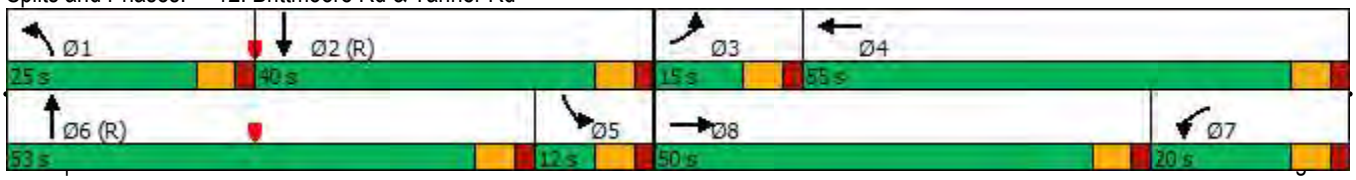
Intersection Summary

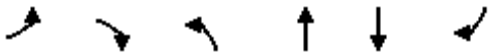
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 29 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 8.94
Intersection Signal Delay: 1407.8 — Intersection LOS: F
Intersection Capacity Utilization 289.0% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

Splits and Phases: 12: Brittmoore Rd & Tanner Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	112	1370	459	825	2645	443
Future Volume (Veh/h)	112	1370	459	825	2645	443
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	122	1489	499	897	2875	482
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	4562	1678	3357			
vC1, stage 1 conf vol	3116					
vC2, stage 2 conf vol	1446					
vCu, unblocked vol	4562	1678	3357			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	0			
cM capacity (veh/h)	0	84	81			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	122	1489	499	448	448	1917	1440
Volume Left	122	0	499	0	0	0	0
Volume Right	0	1489	0	0	0	0	482
cSH	0	84	81	1700	1700	1700	1700
Volume to Capacity	Err	17.76	6.17	0.26	0.26	1.13	0.85
Queue Length 95th (ft)	Err	Err	Err	0	0	0	0
Control Delay (s)	Err	Err	2427.4	0.0	0.0	0.0	0.0
Lane LOS	F	F	F				
Approach Delay (s)	Err		867.7			0.0	
Approach LOS	F						

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	178.7%	ICU Level of Service		H
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	279	1937	206	356	3255	121	340	1967	1204	142	578	411
Future Volume (vph)	279	1937	206	356	3255	121	340	1967	1204	142	578	411
Satd. Flow (prot)	1770	3490	0	1770	3522	0	1770	3337	0	1770	3320	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1770	3522	0	1770	3337	0	1770	3320	0
Satd. Flow (RTOR)		11			4			86			114	
Lane Group Flow (vph)	303	2329	0	387	3670	0	370	3447	0	154	1075	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	18.0	67.0		18.0	67.0		22.0	32.0		18.0	28.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.0	61.0		12.0	61.0		16.0	26.0		12.0	22.0	
Actuated g/C Ratio	0.09	0.45		0.09	0.45		0.12	0.19		0.09	0.16	
v/c Ratio	1.93	1.47		2.46	2.30		1.77	4.84		0.98	1.69	
Control Delay	472.5	246.0		685.2	608.3		399.1	1743.6		127.7	348.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	472.5	246.0		685.2	608.3		399.1	1743.6		127.7	348.1	
LOS	F	F		F	F		F	F		F	F	
Approach Delay		272.1			615.6			1613.3			320.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~408	~1480		~567	~2776		~483	~2966		137	~684	
Queue Length 95th (ft)	#596	#1613		m#260	m#1245		#683	#3067		#281	#824	
Internal Link Dist (ft)		996			1105			1257			271	
Turn Bay Length (ft)	100			130			150			100		
Base Capacity (vph)	157	1582		157	1593		209	712		157	636	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.93	1.47		2.46	2.30		1.77	4.84		0.98	1.69	

Intersection Summary

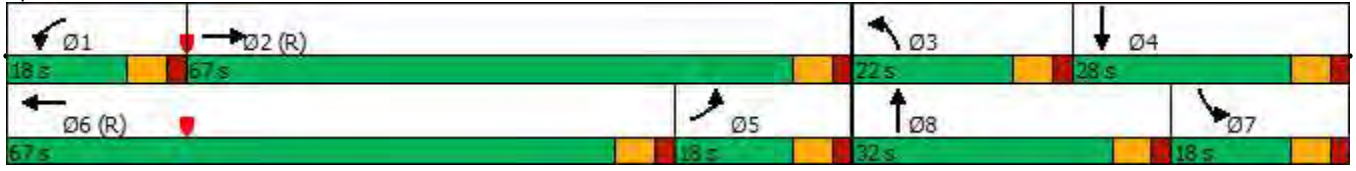
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 51 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.84
Intersection Signal Delay: 832.2 Intersection LOS: F
Intersection Capacity Utilization 230.1% ICU Level of Service H
Analysis Period (min) 15

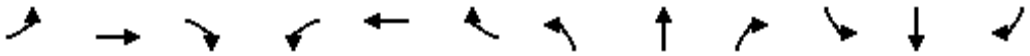
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Brittmoore Rd & W Little York Rd



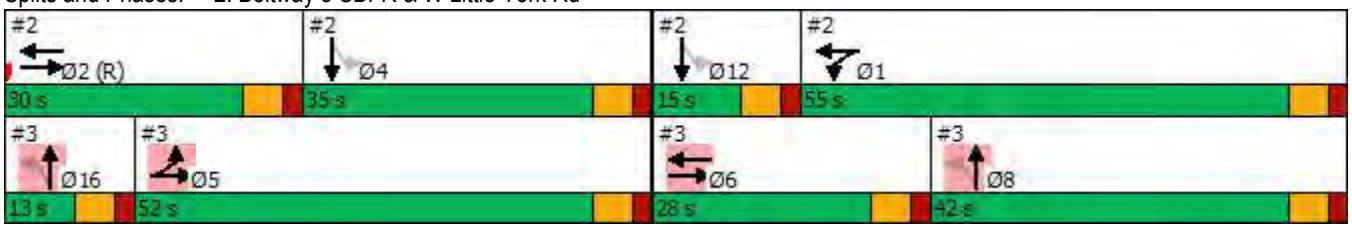


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2784	411	870	2481	0	0	0	0	103	4678	1460
Future Volume (vph)	0	2784	411	870	2481	0	0	0	0	103	4678	1460
Satd. Flow (prot)	0	4989	0	1770	3539	0	0	0	0	0	4902	0
Flt Permitted				0.950							0.999	
Satd. Flow (perm)	0	4989	0	1770	3539	0	0	0	0	0	4902	0
Satd. Flow (RTOR)		17									2	
Lane Group Flow (vph)	0	3473	0	946	2697	0	0	0	0	0	6784	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4 12	
Permitted Phases										4 12		
Total Split (s)		30.0		55.0								
Total Lost Time (s)		6.0		6.0								
Act Effct Green (s)		24.0		49.0	79.0						44.0	
Actuated g/C Ratio		0.18		0.36	0.59						0.33	
v/c Ratio		3.86		1.47	1.30						4.24	
Control Delay		1301.3		237.5	167.4						1474.0	
Queue Delay		3.6		9.3	4.5						0.0	
Total Delay		1304.9		246.8	171.9						1474.0	
LOS		F		F	F						F	
Approach Delay		1304.9			191.4						1474.0	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~2012		~1159	~1640						~4041	
Queue Length 95th (ft)		m#897		m283	m398						#4009	
Internal Link Dist (ft)		310			159			74			85	
Turn Bay Length (ft)												
Base Capacity (vph)		900		642	2070						1599	
Starvation Cap Reductn		0		392	1356						0	
Spillback Cap Reductn		382		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		6.70		3.78	3.78						4.24	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 5.67	
Intersection Signal Delay: 1095.6	Intersection LOS: F
Intersection Capacity Utilization 398.6%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Beltway 8 SBFR & W Little York Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	35.0	52.0	28.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

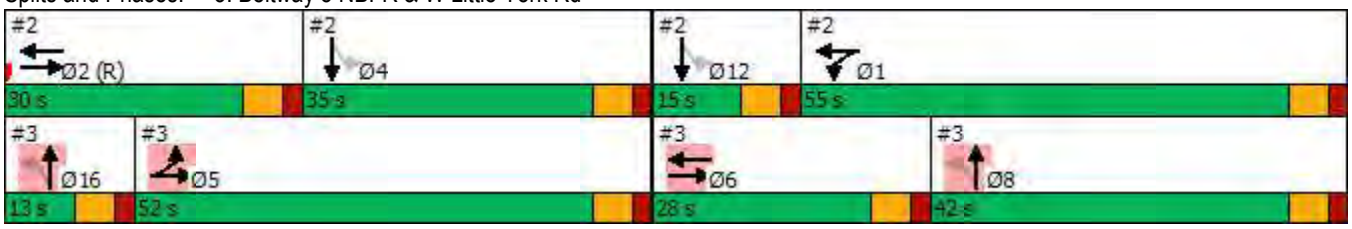
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1656	1231	0	0	2924	162	427	8335	660	0	0	0
Future Volume (vph)	1656	1231	0	0	2924	162	427	8335	660	0	0	0
Satd. Flow (prot)	1770	3539	0	0	5045	0	1522	4753	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3539	0	0	5045	0	1522	4753	0	0	0	0
Satd. Flow (RTOR)								10				
Lane Group Flow (vph)	1800	1338	0	0	3354	0	418	9823	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16					
Total Split (s)	52.0				28.0							
Total Lost Time (s)	6.0				6.0							
Act Effct Green (s)	46.0	74.0			22.0		49.0	49.0				
Actuated g/C Ratio	0.34	0.55			0.16		0.36	0.36				
v/c Ratio	2.99	0.69			4.08		0.76	5.67				
Control Delay	909.4	21.7			1403.5		48.1	2114.9				
Queue Delay	11.4	56.8			6.9		0.0	0.0				
Total Delay	920.9	78.5			1410.4		48.1	2114.9				
LOS	F	E			F		D	F				
Approach Delay		561.7			1410.4			2030.6				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~2807	646			~1962		372	~6402				
Queue Length 95th (ft)	m429	m44			#2033		530	#6242				
Internal Link Dist (ft)		159			353			68			75	
Turn Bay Length (ft)												
Base Capacity (vph)	603	1939			822		552	1731				
Starvation Cap Reductn	394	1565			0		0	0				
Spillback Cap Reductn	0	0			476		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	8.61	3.58			9.69		0.76	5.67				

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 5.67	
Intersection Signal Delay: 1630.8	Intersection LOS: F
Intersection Capacity Utilization 399.6%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beltway 8 NBFR & W Little York Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	55.0	30.0	35.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

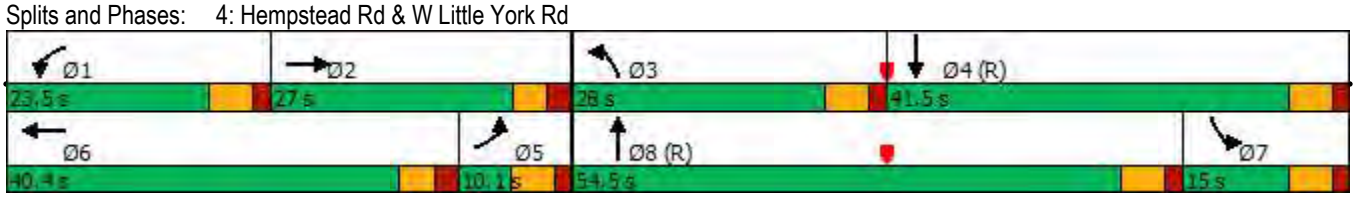
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	1300	541	25	1195	43	1407	1334	576	137	302	66
Future Volume (vph)	18	1300	541	25	1195	43	1407	1334	576	137	302	66
Satd. Flow (prot)	1770	3383	0	1770	3522	0	1770	3380	0	1770	3444	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3383	0	1770	3522	0	1770	3380	0	1770	3444	0
Satd. Flow (RTOR)		46			3			68			22	
Lane Group Flow (vph)	20	2001	0	27	1346	0	1529	2076	0	149	400	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	10.1	27.0		23.5	40.4		28.0	54.5		15.0	41.5	
Total Lost Time (s)	5.5	5.4		5.5	5.4		5.5	5.5		5.5	5.5	
Act Effct Green (s)	4.6	21.6		18.0	35.0		22.5	49.0		9.5	36.0	
Actuated g/C Ratio	0.04	0.18		0.15	0.29		0.19	0.41		0.08	0.30	
v/c Ratio	0.30	3.10		0.10	1.31		4.62	1.46		1.06	0.38	
Control Delay	67.7	965.9		45.2	181.2		1641.1	231.9		146.7	32.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	67.7	965.9		45.2	181.2		1641.1	231.9		146.7	32.5	
LOS	E	F		D	F		F	F		F	C	
Approach Delay		957.0			178.6			829.6			63.5	
Approach LOS		F			F			F			E	
Queue Length 50th (ft)	15	~1426		18	~708		~2186	~1166		~127	121	
Queue Length 95th (ft)	42	#1566		46	#849		m#870	m350		#263	167	
Internal Link Dist (ft)		473			1258			257			824	
Turn Bay Length (ft)	320			150			160			150		
Base Capacity (vph)	67	646		265	1029		331	1420		140	1048	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.30	3.10		0.10	1.31		4.62	1.46		1.06	0.38	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.62
Intersection Signal Delay: 689.6 — Intersection LOS: F
Intersection Capacity Utilization 155.3% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hempstead Rd & W Little York Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	361	5943	767	1512	1629	0	0	1167	64
Future Volume (vph)	0	0	0	361	5943	767	1512	1629	0	0	1167	64
Satd. Flow (prot)	0	0	0	1610	3390	1583	1610	3353	0	0	5045	0
Flt Permitted				0.950			0.950	0.568				
Satd. Flow (perm)	0	0	0	1610	3390	1583	1610	1926	0	0	5045	0
Satd. Flow (RTOR)						142						
Lane Group Flow (vph)	0	0	0	353	6499	834	1117	2297	0	0	1338	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							31.5				26.9	
Total Lost Time (s)							5.5				5.9	
Act Effct Green (s)				54.9	54.9	54.9	26.0	47.4			21.0	
Actuated g/C Ratio				0.46	0.46	0.46	0.22	0.40			0.18	
v/c Ratio				0.48	4.19	1.04	3.21	3.07			1.52	
Control Delay				25.4	1451.1	70.4	1010.3	947.7			273.5	
Queue Delay				0.2	0.2	0.0	3.7	2.3			3.5	
Total Delay				25.6	1451.3	70.4	1014.0	950.0			277.0	
LOS				C	F	E	F	F			F	
Approach Delay					1236.0			970.9			277.0	
Approach LOS					F			F			F	
Queue Length 50th (ft)				203	~5068	~635	~1709	~1732			~529	
Queue Length 95th (ft)				298	#5072	#883	m#496	m#467			#625	
Internal Link Dist (ft)		78			52			183			787	
Turn Bay Length (ft)												
Base Capacity (vph)				736	1550	801	348	748			882	
Starvation Cap Reductn				0	0	0	93	210			0	
Spillback Cap Reductn				62	98	0	0	0			364	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.52	4.48	1.04	4.38	4.27			2.58	

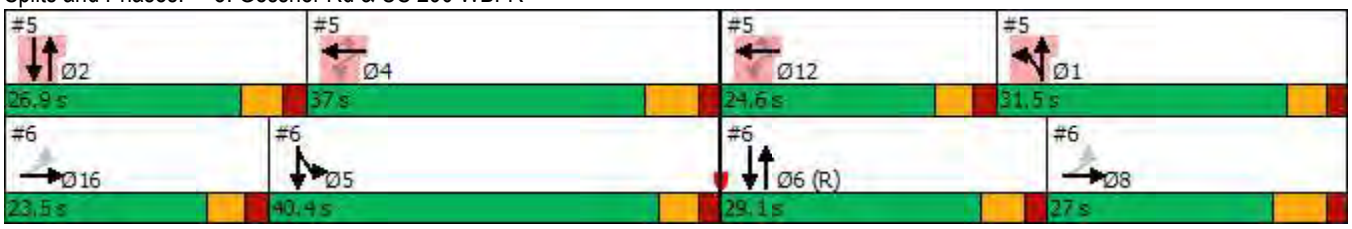
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.43	
Intersection Signal Delay: 1060.1	Intersection LOS: F
Intersection Capacity Utilization 313.6%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

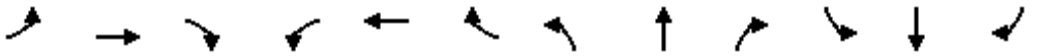
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Gessner Rd & US 290 WBFR



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	37.0	40.4	29.1	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

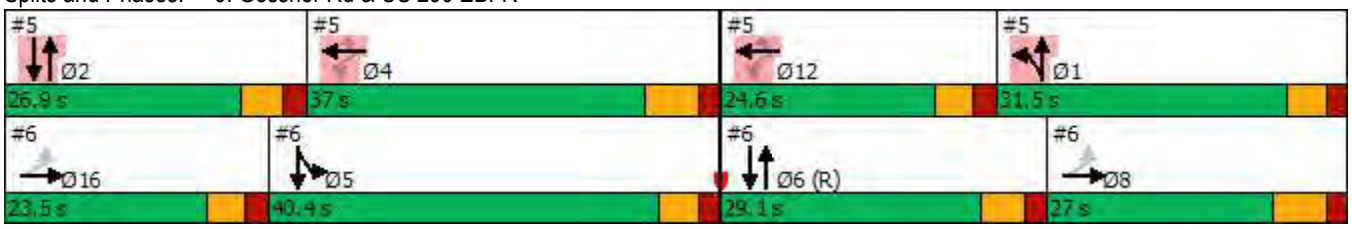


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	423	4660	313	0	0	0	0	2718	288	582	946	0
Future Volume (vph)	423	4660	313	0	0	0	0	2718	288	582	946	0
Satd. Flow (prot)	1610	3360	0	0	0	0	0	5014	0	1610	3377	0
Flt Permitted	0.950									0.950	0.515	
Satd. Flow (perm)	1610	3360	0	0	0	0	0	5014	0	1610	1746	0
Satd. Flow (RTOR)		6						13				
Lane Group Flow (vph)	414	5451	0	0	0	0	0	3267	0	538	1123	0
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16											
Total Split (s)								29.1		40.4		
Total Lost Time (s)								5.9		5.5		
Act Effct Green (s)	43.8	43.8						23.2		34.9	34.9	
Actuated g/C Ratio	0.36	0.36						0.19		0.29	0.29	
v/c Ratio	0.71	4.43						3.34		1.15	1.14	
Control Delay	40.4	1558.6						1069.4		96.3	92.1	
Queue Delay	1.2	0.3						6.0		4.9	3.1	
Total Delay	41.6	1558.9						1075.4		101.3	95.1	
LOS	D	F						F		F	F	
Approach Delay		1451.8						1075.4			97.1	
Approach LOS		F						F			F	
Queue Length 50th (ft)	298	~4344						~1663		~552	~575	
Queue Length 95th (ft)	431	#4392						m#765		m352	m354	
Internal Link Dist (ft)		77			77			1992			183	
Turn Bay Length (ft)												
Base Capacity (vph)	587	1230						979		468	982	
Starvation Cap Reductn	0	0						0		177	393	
Spillback Cap Reductn	53	84						565		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.78	4.76						7.89		1.85	1.91	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.43	
Intersection Signal Delay: 1129.4	Intersection LOS: F
Intersection Capacity Utilization 313.6%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Gessner Rd & US 290 EBFR



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	31.5	26.9	37.0	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	724	233	306	3257	1313	354	1432	153	368	916	224
Future Volume (vph)	23	724	233	306	3257	1313	354	1432	153	368	916	224
Satd. Flow (prot)	1770	3412	0	1770	3539	1583	1770	3490	0	1770	3437	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3412	0	1770	3539	1583	1770	3490	0	1770	3437	0
Satd. Flow (RTOR)		37				309		8			23	
Lane Group Flow (vph)	25	1040	0	333	3540	1427	385	1723	0	400	1239	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	6	2		1	5		3	7		8	4	
Permitted Phases						5						
Total Split (s)	11.0	41.4		23.6	54.0	54.0	21.0	29.0		26.0	34.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	6.0	6.0		6.0	6.0	
Act Effct Green (s)	5.3	35.9		18.1	52.9	52.9	15.0	23.0		20.0	28.0	
Actuated g/C Ratio	0.04	0.30		0.15	0.44	0.44	0.12	0.19		0.17	0.23	
v/c Ratio	0.32	0.99		1.25	2.27	1.64	1.74	2.55		1.36	1.51	
Control Delay	62.2	52.2		182.7	594.7	315.7	357.7	717.2		201.2	264.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	62.2	52.2		182.7	594.7	315.7	357.7	717.2		201.2	264.4	
LOS	E	D		F	F	F	F	F		F	F	
Approach Delay		52.4			493.7			651.5			249.0	
Approach LOS		D			F			F			F	
Queue Length 50th (ft)	20	437		~322	~2396	~1499	~452	~1212		~419	~716	
Queue Length 95th (ft)	m26	m284		#505	#2504	#1766	m#222	m#608		m#293	m#480	
Internal Link Dist (ft)		196			702			311			1992	
Turn Bay Length (ft)	100			100		175	200			120		
Base Capacity (vph)	81	1046		266	1560	870	221	675		295	819	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	0.99		1.25	2.27	1.64	1.74	2.55		1.36	1.51	

Intersection Summary

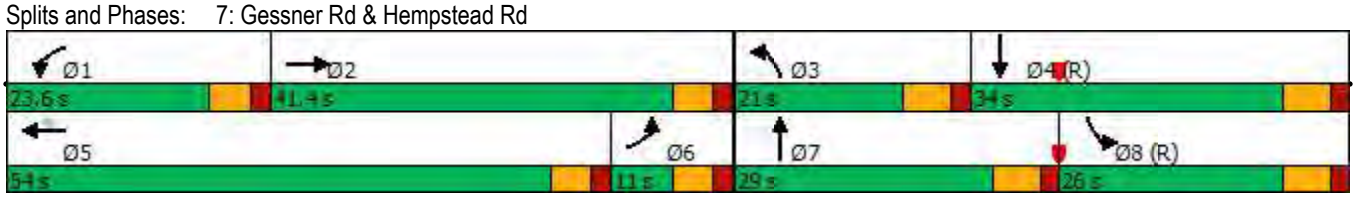
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:SBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.55
Intersection Signal Delay: 440.5 — Intersection LOS: F
Intersection Capacity Utilization 178.2% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Gessner Rd & Hempstead Rd



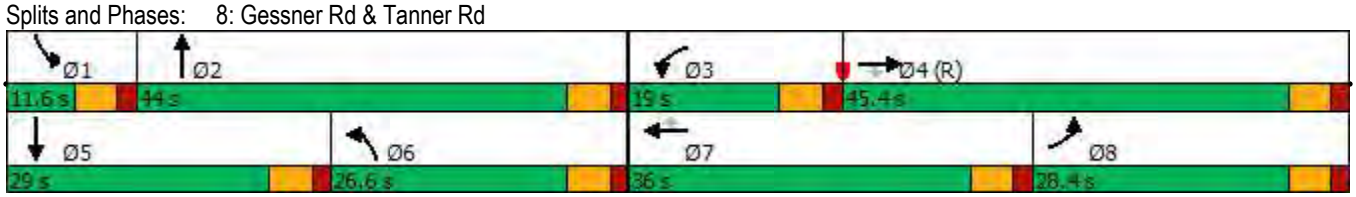
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	194	660	302	187	1288	137	290	1836	174	57	1233	585
Future Volume (vph)	194	660	302	187	1288	137	290	1836	174	57	1233	585
Satd. Flow (prot)	1652	1863	1583	1652	1863	1583	1652	3493	0	1652	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1652	1863	1583	1652	1863	1583	1652	3493	0	1652	3369	0
Satd. Flow (RTOR)			176			176		9			59	
Lane Group Flow (vph)	211	717	328	203	1400	149	315	2185	0	62	1976	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases			4			7						
Total Split (s)	28.4	45.4	45.4	19.0	36.0	36.0	26.6	44.0		11.6	29.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		5.6	5.6	
Act Effct Green (s)	22.8	39.8	39.8	13.4	30.4	30.4	21.0	38.4		6.0	23.4	
Actuated g/C Ratio	0.19	0.33	0.33	0.11	0.25	0.25	0.18	0.32		0.05	0.20	
v/c Ratio	0.67	1.16	0.51	1.10	2.97	0.28	1.09	1.95		0.76	2.81	
Control Delay	57.0	126.9	17.4	145.8	911.8	4.4	125.5	454.5		54.0	831.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	57.0	126.9	17.4	145.8	911.8	4.4	125.5	454.5		54.0	831.5	
LOS	E	F	B	F	F	A	F	F		D	F	
Approach Delay		86.5			745.8			413.1			807.9	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	153	~658	90	~179	~1876	0	~275	~1389		48	~1398	
Queue Length 95th (ft)	240	#891	180	#332	#2139	34	#457	#1527		m49	m#1089	
Internal Link Dist (ft)		115			125			620			3415	
Turn Bay Length (ft)			50			50	200			200		
Base Capacity (vph)	313	617	642	184	471	532	289	1123		82	704	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.67	1.16	0.51	1.10	2.97	0.28	1.09	1.95		0.76	2.81	

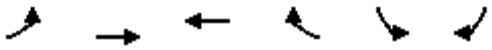
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 4:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.97
Intersection Signal Delay: 542.6 Intersection LOS: F
Intersection Capacity Utilization 166.1% ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Gessner Rd & Tanner Rd

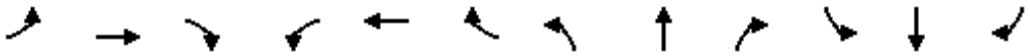




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1140	2248	7	0	48
Future Volume (Veh/h)	0	1140	2248	7	0	48
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1239	2443	8	0	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1141				
pX, platoon unblocked					0.64	
vC, conflicting volume	2451				3686	2447
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2451				4935	2447
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	190				0	40

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	1239	2451	52
Volume Left	0	0	0
Volume Right	0	8	52
cSH	190	1700	40
Volume to Capacity	0.00	1.44	1.30
Queue Length 95th (ft)	0	0	131
Control Delay (s)	0.0	0.0	404.0
Lane LOS			F
Approach Delay (s)	0.0	0.0	404.0
Approach LOS			F

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	128.7%	ICU Level of Service	H
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	560	861	0	0	2186	299	1377	4086	477	0	0	0
Future Volume (vph)	560	861	0	0	2186	299	1377	4086	477	0	0	0
Satd. Flow (prot)	1610	3373	0	0	4994	0	0	4969	0	0	0	0
Flt Permitted	0.950	0.538						0.989				
Satd. Flow (perm)	1610	1824	0	0	4994	0	0	4969	0	0	0	0
Satd. Flow (RTOR)					5			18				
Lane Group Flow (vph)	499	1046	0	0	2701	0	0	6456	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	24.5				25.0							
Total Lost Time (s)	4.5				6.0							
Act Effct Green (s)	20.0	37.5			19.0			44.5				
Actuated g/C Ratio	0.20	0.38			0.19			0.44				
v/c Ratio	1.55	1.67			2.84			2.91				
Control Delay	272.3	322.7			848.3			876.1				
Queue Delay	1.2	0.0			4.9			0.2				
Total Delay	273.5	322.7			853.3			876.3				
LOS	F	F			F			F				
Approach Delay		306.8			853.3			876.3				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~510	~551			~1103			~2652				
Queue Length 95th (ft)	m#263	m#293			#1199			#2686				
Internal Link Dist (ft)		223			174			89			91	
Turn Bay Length (ft)												
Base Capacity (vph)	322	628			952			2221				
Starvation Cap Reductn	31	0			0			0				
Spillback Cap Reductn	0	0			493			191				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	1.71	1.67			5.88			3.18				

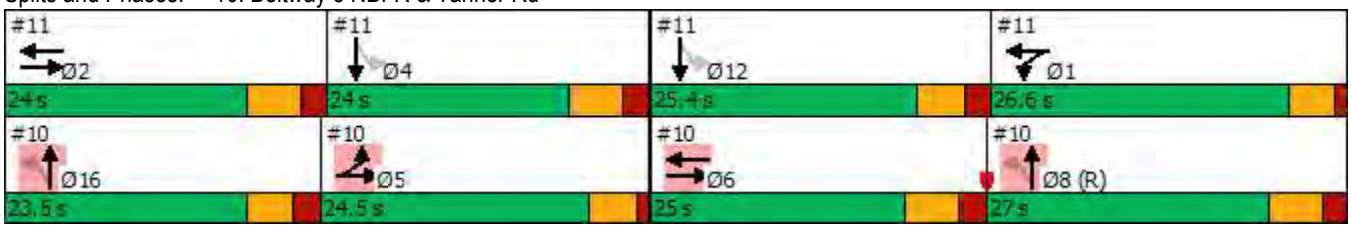
Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.91	
Intersection Signal Delay: 788.3	Intersection LOS: F
Intersection Capacity Utilization 267.1%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Beltway 8 NBFR & Tanner Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	26.6	24.0	24.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

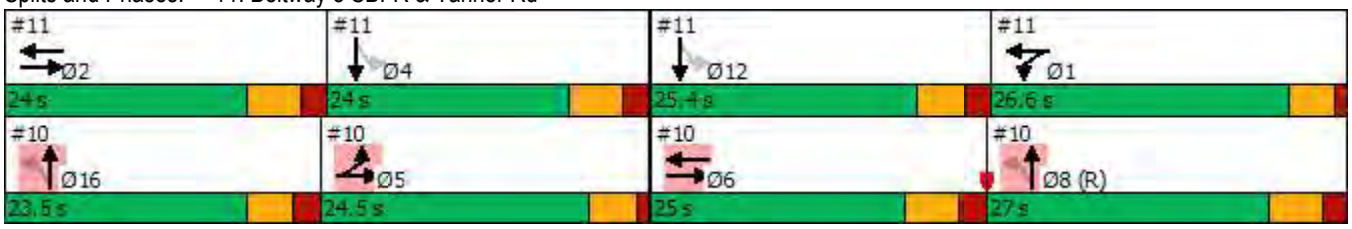
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1227	621	669	2894	0	0	0	0	194	2168	886
Future Volume (vph)	0	1227	621	669	2894	0	0	0	0	194	2168	886
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	0	4862	0
Flt Permitted				0.950							0.997	
Satd. Flow (perm)	0	5085	1583	1770	3539	0	0	0	0	0	4862	0
Satd. Flow (RTOR)			248									
Lane Group Flow (vph)	0	1334	675	727	3146	0	0	0	0	0	3531	0
Turn Type		NA	Free	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases			Free							4 12		
Total Split (s)		24.0		26.6								
Total Lost Time (s)		6.0		4.5								
Act Effct Green (s)		18.0	100.0	22.1	44.6						43.4	
Actuated g/C Ratio		0.18	1.00	0.22	0.45						0.43	
v/c Ratio		1.46	0.43	1.86	1.99						1.67	
Control Delay		244.3	0.8	411.4	468.0						329.7	
Queue Delay		2.6	0.0	2.8	2.7						0.3	
Total Delay		246.9	0.8	414.2	470.7						329.9	
LOS		F	A	F	F						F	
Approach Delay		164.2			460.1						329.9	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~428	0	~721	~1684						~1209	
Queue Length 95th (ft)		#521	0	m153	m308						#1294	
Internal Link Dist (ft)		1818			223			109			83	
Turn Bay Length (ft)			100									
Base Capacity (vph)		915	1583	391	1578						2110	
Starvation Cap Reductn		0	0	89	732						0	
Spillback Cap Reductn		312	0	0	0						197	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		2.21	0.43	2.41	3.72						1.85	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.91	
Intersection Signal Delay: 348.1	Intersection LOS: F
Intersection Capacity Utilization 267.1%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Beltway 8 SBFR & Tanner Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	24.0	24.5	25.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

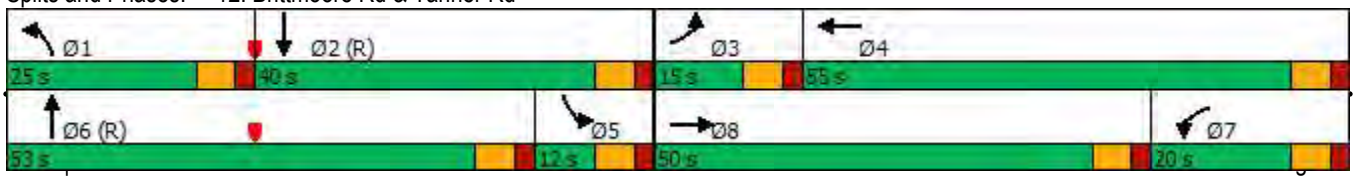
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	1133	132	169	2905	516	747	2494	452	210	767	274
Future Volume (vph)	340	1133	132	169	2905	516	747	2494	452	210	767	274
Satd. Flow (prot)	1593	3134	0	1593	3112	0	1593	3112	0	1593	3061	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1593	3134	0	1593	3112	0	1593	3112	0	1593	3061	0
Satd. Flow (RTOR)		10			17			17			36	
Lane Group Flow (vph)	370	1375	0	184	3719	0	812	3202	0	228	1132	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Total Split (s)	15.0	50.0		20.0	55.0		25.0	53.0		12.0	40.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	9.0	44.0		14.0	49.0		19.0	47.0		6.0	34.0	
Actuated g/C Ratio	0.07	0.33		0.10	0.36		0.14	0.35		0.04	0.25	
v/c Ratio	3.49	1.34		1.12	3.26		3.62	2.93		3.26	1.42	
Control Delay	1161.5	195.0		158.1	1037.0		1208.6	888.1		1070.4	232.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	1161.5	195.0		158.1	1037.0		1208.6	888.1		1070.4	232.9	
LOS	F	F		F	F		F	F		F	F	
Approach Delay		400.0			995.6			953.0			373.3	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~577	~826		~185	~3048		~1274	~2567		~351	~693	
Queue Length 95th (ft)	#777	#968		#339	#3140		#1523	#2677		#518	#833	
Internal Link Dist (ft)		951			1818			1813			1031	
Turn Bay Length (ft)	120			120			200			150		
Base Capacity (vph)	106	1028		165	1140		224	1094		70	797	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	3.49	1.34		1.12	3.26		3.63	2.93		3.26	1.42	

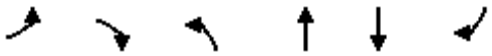
Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 29 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.63
Intersection Signal Delay: 809.0 — Intersection LOS: F
Intersection Capacity Utilization 254.0% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

Splits and Phases: 12: Brittmoore Rd & Tanner Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	420	459	797	3022	978	126
Future Volume (Veh/h)	420	459	797	3022	978	126
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	457	499	866	3285	1063	137
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	4506	600	1200			
vC1, stage 1 conf vol	1132					
vC2, stage 2 conf vol	3374					
vCu, unblocked vol	4506	600	1200			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	0			
cM capacity (veh/h)	0	444	577			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	457	499	866	1642	1642	709	491
Volume Left	457	0	866	0	0	0	0
Volume Right	0	499	0	0	0	0	137
cSH	0	444	577	1700	1700	1700	1700
Volume to Capacity	Err	1.12	1.50	0.97	0.97	0.42	0.29
Queue Length 95th (ft)	Err	438	1088	0	0	0	0
Control Delay (s)	Err	110.7	253.6	0.0	0.0	0.0	0.0
Lane LOS	F	F	F				
Approach Delay (s)	Err		52.9			0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	113.5%	ICU Level of Service	H
Analysis Period (min)	15		

Appendix E
Capacity Analysis – 2068 Projected Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	3435	352	681	1272	187	89	404	331	270	2337	190
Future Volume (vph)	169	3435	352	681	1272	187	89	404	331	270	2337	190
Satd. Flow (prot)	1770	3490	0	1770	3472	0	1770	3299	0	1770	3500	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1770	3472	0	1770	3299	0	1770	3500	0
Satd. Flow (RTOR)		10			16			137			5	
Lane Group Flow (vph)	184	4117	0	740	1586	0	97	799	0	293	2747	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	18.0	67.0		18.0	67.0		22.0	32.0		18.0	28.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.0	61.0		12.0	61.0		11.6	26.0		12.0	26.4	
Actuated g/C Ratio	0.09	0.45		0.09	0.45		0.09	0.19		0.09	0.20	
v/c Ratio	1.17	2.60		4.71	1.01		0.64	1.07		1.87	4.00	
Control Delay	177.4	742.5		1685.1	48.2		77.7	96.4		445.7	1367.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	177.4	742.5		1685.1	48.2		77.7	96.4		445.7	1367.4	
LOS	F	F		F	D		E	F		F	F	
Approach Delay		718.4			569.0			94.4			1278.6	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~192	~3220		~1241	~691		84	~354		~390	~2332	
Queue Length 95th (ft)	#346	#3296		m#899	m367		141	#486		#574	#2508	
Internal Link Dist (ft)		996			1105			1257			271	
Turn Bay Length (ft)	100			130			150			100		
Base Capacity (vph)	157	1582		157	1577		209	745		157	687	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.17	2.60		4.71	1.01		0.46	1.07		1.87	4.00	

Intersection Summary

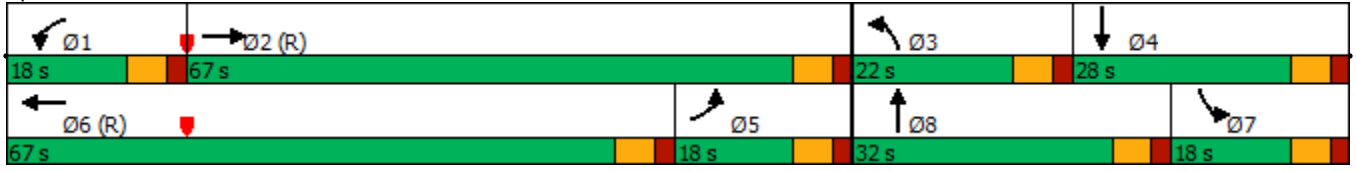
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 51 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.71
Intersection Signal Delay: 793.8 Intersection LOS: F
Intersection Capacity Utilization 239.5% ICU Level of Service H
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Brittmoore Rd & W Little York Rd

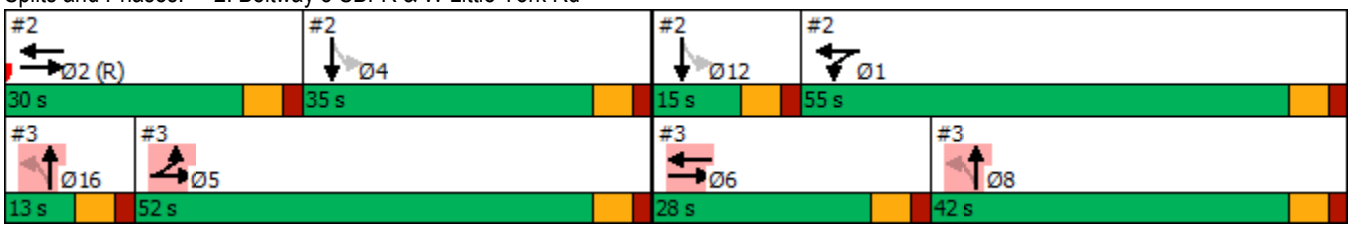


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	3504	704	662	1309	0	0	0	0	306	8648	932
Future Volume (vph)	0	3504	704	662	1309	0	0	0	0	306	8648	932
Satd. Flow (prot)	0	4958	0	1770	3539	0	0	0	0	0	5004	0
Flt Permitted				0.950							0.998	
Satd. Flow (perm)	0	4958	0	1770	3539	0	0	0	0	0	5004	0
Satd. Flow (RTOR)		27									14	
Lane Group Flow (vph)	0	4574	0	720	1423	0	0	0	0	0	10746	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4 12	
Permitted Phases										4 12		
Total Split (s)		30.0		55.0								
Total Lost Time (s)		6.0		6.0								
Act Effct Green (s)		24.0		49.0	79.0						44.0	
Actuated g/C Ratio		0.18		0.36	0.59						0.33	
v/c Ratio		5.07		1.12	0.69						6.55	
Control Delay		1840.8		81.3	18.0						2508.7	
Queue Delay		4.7		7.8	51.9						0.0	
Total Delay		1845.5		89.2	69.8						2508.7	
LOS		F		F	E						F	
Approach Delay		1845.5			76.3						2508.7	
Approach LOS		F			E						F	
Queue Length 50th (ft)		~2805		~732	635						~6705	
Queue Length 95th (ft)		m#1129		m368	m325						#6515	
Internal Link Dist (ft)		310			159			74			85	
Turn Bay Length (ft)												
Base Capacity (vph)		903		642	2070						1640	
Starvation Cap Reductn		0		362	1386						0	
Spillback Cap Reductn		448		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		10.05		2.57	2.08						6.55	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 6.55	
Intersection Signal Delay: 2036.5	Intersection LOS: F
Intersection Capacity Utilization 408.4%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Beltway 8 SBFR & W Little York Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	35.0	52.0	28.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

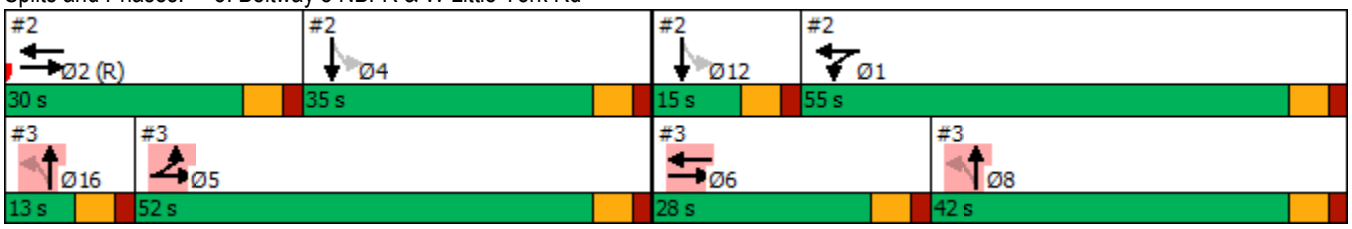
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1318	2492	0	0	1494	103	477	4048	1295	0	0	0
Future Volume (vph)	1318	2492	0	0	1494	103	477	4048	1295	0	0	0
Satd. Flow (prot)	1770	3539	0	0	5034	0	1522	4633	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3539	0	0	5034	0	1522	4633	0	0	0	0
Satd. Flow (RTOR)					1			1				
Lane Group Flow (vph)	1433	2709	0	0	1736	0	466	5860	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16					
Total Split (s)	52.0				28.0							
Total Lost Time (s)	6.0				6.0							
Act Effct Green (s)	46.0	74.0			22.0		49.0	49.0				
Actuated g/C Ratio	0.34	0.55			0.16		0.36	0.36				
v/c Ratio	2.38	1.40			2.11		0.84	3.48				
Control Delay	638.4	206.9			533.2		54.9	1135.1				
Queue Delay	11.9	8.5			4.8		0.0	0.0				
Total Delay	650.3	215.4			538.0		54.9	1135.1				
LOS	F	F			F		D	F				
Approach Delay		365.8			538.0			1055.5				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~2112	~1716			~892		433	~3584				
Queue Length 95th (ft)	m203	m124			#990		#651	#3584				
Internal Link Dist (ft)		159			353			68			75	
Turn Bay Length (ft)												
Base Capacity (vph)	603	1939			821		552	1682				
Starvation Cap Reductn	400	1522			0		0	0				
Spillback Cap Reductn	0	0			393		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	7.06	6.50			4.06		0.84	3.48				

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 6.55	
Intersection Signal Delay: 747.8	Intersection LOS: F
Intersection Capacity Utilization 409.4%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beltway 8 NBFR & W Little York Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	55.0	30.0	35.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

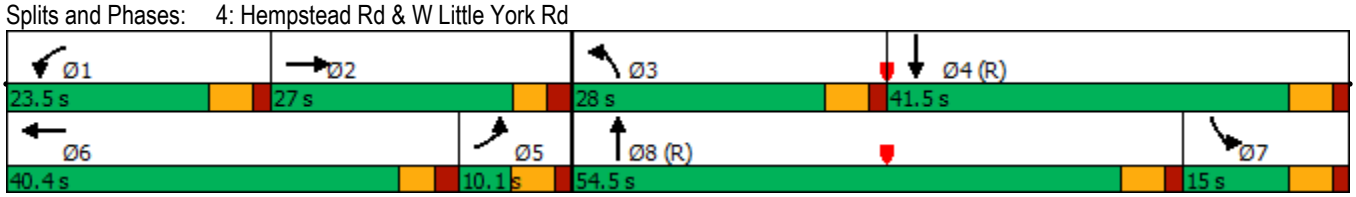
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	1807	1117	16	1140	73	432	313	9	94	1138	101
Future Volume (vph)	94	1807	1117	16	1140	73	432	313	9	94	1138	101
Satd. Flow (prot)	1770	3337	0	1770	3507	0	1770	3525	0	1770	3497	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3337	0	1770	3507	0	1770	3525	0	1770	3497	0
Satd. Flow (RTOR)		97			5			3			8	
Lane Group Flow (vph)	102	3178	0	17	1318	0	470	350	0	102	1347	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	10.1	27.0		23.5	40.4		28.0	54.5		15.0	41.5	
Total Lost Time (s)	5.5	5.4		5.5	5.4		5.5	5.5		5.5	5.5	
Act Effct Green (s)	4.6	21.6		18.0	35.0		22.5	49.0		9.5	36.0	
Actuated g/C Ratio	0.04	0.18		0.15	0.29		0.19	0.41		0.08	0.30	
v/c Ratio	1.52	4.67		0.06	1.28		1.42	0.24		0.73	1.28	
Control Delay	335.5	1668.5		44.6	171.5		224.0	13.0		82.7	168.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	335.5	1668.5		44.6	171.5		224.0	13.0		82.7	168.2	
LOS	F	F		D	F		F	B		F	F	
Approach Delay		1627.0			169.9			134.0			162.2	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~110	~2408		11	~685		~496	110		79	~696	
Queue Length 95th (ft)	#226	#2528		34	#825		m#662	m120		#168	#837	
Internal Link Dist (ft)		473			1258			257			824	
Turn Bay Length (ft)	320			150			160			150		
Base Capacity (vph)	67	680		265	1026		331	1441		140	1054	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.52	4.67		0.06	1.28		1.42	0.24		0.73	1.28	

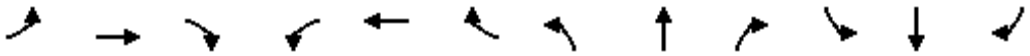
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.67
Intersection Signal Delay: 858.3 — Intersection LOS: F
Intersection Capacity Utilization 158.0% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hempstead Rd & W Little York Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	677	2414	254	573	1108	0	0	2682	21
Future Volume (vph)	0	0	0	677	2414	254	573	1108	0	0	2682	21
Satd. Flow (prot)	0	0	0	1610	3387	1583	1610	3383	0	0	5080	0
Flt Permitted				0.950	0.999		0.950	0.578				
Satd. Flow (perm)	0	0	0	1610	3387	1583	1610	1960	0	0	5080	0
Satd. Flow (RTOR)						113					1	
Lane Group Flow (vph)	0	0	0	662	2698	276	561	1266	0	0	2938	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							31.5				26.9	
Total Lost Time (s)							5.5				5.9	
Act Effct Green (s)				54.9	54.9	54.9	26.0	47.4			21.0	
Actuated g/C Ratio				0.46	0.46	0.46	0.22	0.40			0.18	
v/c Ratio				0.90	1.74	0.35	1.61	1.66			3.30	
Control Delay				47.1	361.9	13.4	300.7	321.6			1057.3	
Queue Delay				9.4	0.2	0.0	3.9	2.2			7.5	
Total Delay				56.5	362.1	13.4	304.6	323.8			1064.8	
LOS				E	F	B	F	F			F	
Approach Delay					280.0			317.9			1064.8	
Approach LOS					F			F			F	
Queue Length 50th (ft)				506	~1703	75	~693	~779			~1492	
Queue Length 95th (ft)				#773	#1836	140	m#393	m#413			#1579	
Internal Link Dist (ft)		78			52			183			787	
Turn Bay Length (ft)												
Base Capacity (vph)				736	1549	785	348	761			889	
Starvation Cap Reductn				0	0	0	96	212			0	
Spillback Cap Reductn				62	98	0	0	0			549	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.98	1.86	0.35	2.23	2.31			8.64	

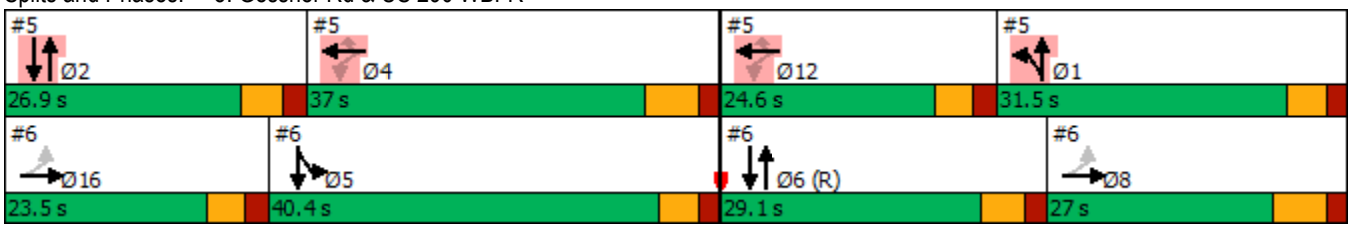
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 9.49	
Intersection Signal Delay: 562.7	Intersection LOS: F
Intersection Capacity Utilization 361.3%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

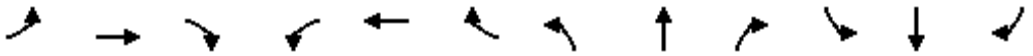
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Gessner Rd & US 290 WBFR



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	37.0	40.4	29.1	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

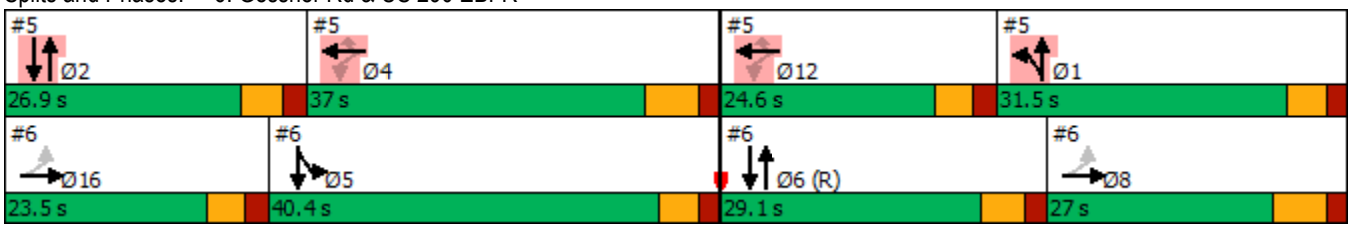


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	404	9950	745	0	0	0	0	1275	283	1080	2277	0
Future Volume (vph)	404	9950	745	0	0	0	0	1275	283	1080	2277	0
Satd. Flow (prot)	1610	3356	0	0	0	0	0	4948	0	1610	3383	0
Flt Permitted	0.950									0.950	0.510	
Satd. Flow (perm)	1610	3356	0	0	0	0	0	4948	0	1610	1729	0
Satd. Flow (RTOR)		7						2				
Lane Group Flow (vph)	395	11669	0	0	0	0	0	1694	0	1057	2592	0
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16											
Total Split (s)								29.1		40.4		
Total Lost Time (s)								5.9		5.5		
Act Effct Green (s)	43.8	43.8						23.2		34.9	34.9	
Actuated g/C Ratio	0.36	0.36						0.19		0.29	0.29	
v/c Ratio	0.67	9.49						1.77		2.26	2.64	
Control Delay	38.9	3830.3						380.9		587.3	755.0	
Queue Delay	0.9	0.3						4.2		5.0	2.8	
Total Delay	39.8	3830.6						385.1		592.3	757.8	
LOS	D	F						F		F	F	
Approach Delay		3706.5						385.1			709.8	
Approach LOS		F						F			F	
Queue Length 50th (ft)	280	~9945						~735		~1493	~1906	
Queue Length 95th (ft)	407	#9682						m#532		m#446	m#600	
Internal Link Dist (ft)		77			77			1992			183	
Turn Bay Length (ft)												
Base Capacity (vph)	587	1229						958		468	983	
Starvation Cap Reductn	0	0						0		180	368	
Spillback Cap Reductn	52	83						455		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.74	10.18						3.37		3.67	4.21	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 9.49	
Intersection Signal Delay: 2755.1	Intersection LOS: F
Intersection Capacity Utilization 361.3%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Gessner Rd & US 290 EBFR



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	31.5	26.9	37.0	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

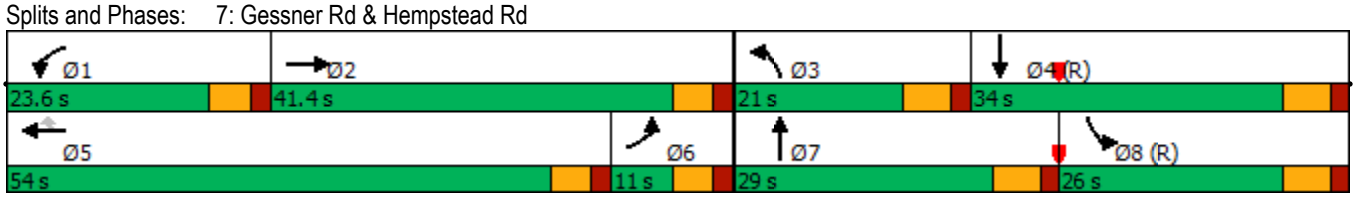
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	2040	519	362	847	576	25	852	283	923	1901	80
Future Volume (vph)	148	2040	519	362	847	576	25	852	283	923	1901	80
Satd. Flow (prot)	1770	3433	0	1770	3539	1583	1770	3408	0	1770	3518	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3433	0	1770	3539	1583	1770	3408	0	1770	3518	0
Satd. Flow (RTOR)		27				515		34			3	
Lane Group Flow (vph)	161	2781	0	393	921	626	27	1234	0	1003	2153	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	6	2		1	5		3	7		8	4	
Permitted Phases						5						
Total Split (s)	11.0	41.4		23.6	54.0	54.0	21.0	29.0		26.0	34.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.2	35.9		18.1	41.8	41.8	6.5	23.0		20.0	40.9	
Actuated g/C Ratio	0.10	0.30		0.15	0.35	0.35	0.05	0.19		0.17	0.34	
v/c Ratio	0.90	2.66		1.48	0.75	0.71	0.28	1.81		3.40	1.79	
Control Delay	56.5	766.6		270.5	38.1	10.3	30.3	390.0		1097.6	383.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	56.5	766.6		270.5	38.1	10.3	30.3	390.0		1097.6	383.4	
LOS	E	F		F	D	B	C	F		F	F	
Approach Delay		727.7			76.2			382.3			610.4	
Approach LOS		F			E			F			F	
Queue Length 50th (ft)	128	~1955		~418	325	59	17	~771		~1427	~1416	
Queue Length 95th (ft)	m#111	m#972		#615	369	180	m15	m#632		m#276	m293	
Internal Link Dist (ft)		196			702			311			1992	
Turn Bay Length (ft)	100			100		175	200			120		
Base Capacity (vph)	179	1045		266	1430	946	221	680		295	1202	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.90	2.66		1.48	0.64	0.66	0.12	1.81		3.40	1.79	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:SBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.40
Intersection Signal Delay: 505.1 — Intersection LOS: F
Intersection Capacity Utilization 195.9% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Gessner Rd & Hempstead Rd



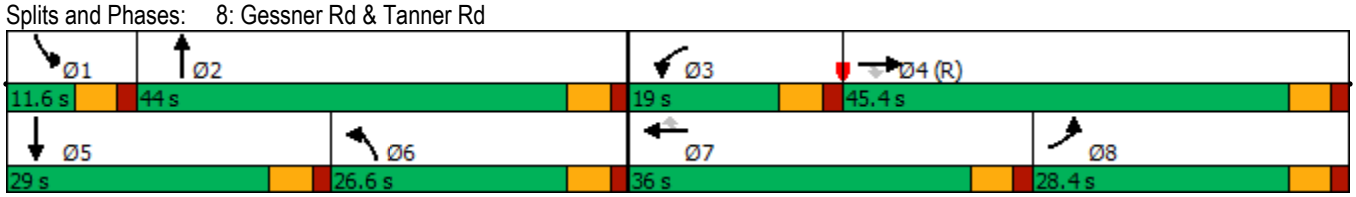
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	210	1393	278	226	672	30	154	1051	215	98	2284	481
Future Volume (vph)	210	1393	278	226	672	30	154	1051	215	98	2284	481
Satd. Flow (prot)	1652	1863	1583	1652	1863	1583	1652	3447	0	1652	3447	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1652	1863	1583	1652	1863	1583	1652	3447	0	1652	3447	0
Satd. Flow (RTOR)			176			176		21			18	
Lane Group Flow (vph)	228	1514	302	246	730	33	167	1376	0	107	3006	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases			4			7						
Total Split (s)	28.4	45.4	45.4	19.0	36.0	36.0	26.6	44.0		11.6	29.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		5.6	5.6	
Act Effct Green (s)	22.8	39.8	39.8	13.4	30.4	30.4	21.0	38.4		6.0	23.4	
Actuated g/C Ratio	0.19	0.33	0.33	0.11	0.25	0.25	0.18	0.32		0.05	0.20	
v/c Ratio	0.73	2.45	0.47	1.34	1.55	0.06	0.58	1.23		1.30	4.38	
Control Delay	60.3	680.2	15.3	224.8	290.2	0.2	54.4	147.8		183.4	1534.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	60.3	680.2	15.3	224.8	290.2	0.2	54.4	147.8		183.4	1534.9	
LOS	E	F	B	F	F	A	D	F		F	F	
Approach Delay		512.9			264.8			137.7			1488.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	168	~1942	71	~248	~796	0	120	~691		~107	~2329	
Queue Length 95th (ft)	#276	#2208	155	#412	#1032	0	195	#831		m49	m#1155	
Internal Link Dist (ft)		115			125			620			3415	
Turn Bay Length (ft)			50			50	200			200		
Base Capacity (vph)	313	617	642	184	471	532	289	1117		82	686	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.73	2.45	0.47	1.34	1.55	0.06	0.58	1.23		1.30	4.38	

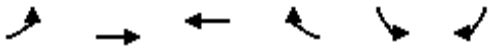
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 4:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.38
Intersection Signal Delay: 799.3 — Intersection LOS: F
Intersection Capacity Utilization 191.5% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Gessner Rd & Tanner Rd

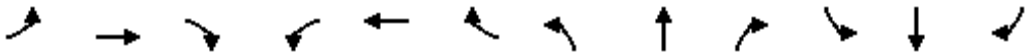




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	36	1978	1195	10	7	35
Future Volume (Veh/h)	36	1978	1195	10	7	35
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	39	2150	1299	11	8	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1141				
pX, platoon unblocked					0.55	
vC, conflicting volume	1310				3532	1304
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1310				5179	1304
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				0	81
cM capacity (veh/h)	528				0	196

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	2189	1310	46
Volume Left	39	0	8
Volume Right	0	11	38
cSH	528	1700	1
Volume to Capacity	0.07	0.77	30.97
Queue Length 95th (ft)	6	0	Err
Control Delay (s)	0.2	0.0	Err
Lane LOS	A		F
Approach Delay (s)	0.2	0.0	Err
Approach LOS			F

Intersection Summary			
Average Delay	129.9		
Intersection Capacity Utilization	142.9%	ICU Level of Service	H
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	868	1537	0	0	1143	209	651	1775	765	0	0	0
Future Volume (vph)	868	1537	0	0	1143	209	651	1775	765	0	0	0
Satd. Flow (prot)	1610	3380	0	0	4968	0	0	4853	0	0	0	0
Flt Permitted	0.950	0.521						0.990				
Satd. Flow (perm)	1610	1766	0	0	4968	0	0	4853	0	0	0	0
Satd. Flow (RTOR)					2			102				
Lane Group Flow (vph)	849	1765	0	0	1469	0	0	3469	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	24.5				25.0							
Total Lost Time (s)	4.5				6.0							
Act Effct Green (s)	20.0	18.5			19.0			44.5				
Actuated g/C Ratio	0.20	0.18			0.19			0.44				
v/c Ratio	2.64	2.82			1.55			1.57				
Control Delay	754.8	837.8			285.2			281.3				
Queue Delay	1.2	0.6			2.1			0.2				
Total Delay	756.0	838.4			287.3			281.5				
LOS	F	F			F			F				
Approach Delay		811.6			287.3			281.5				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~1042	~1101			~491			~1152				
Queue Length 95th (ft)	m#273	m#301			#587			#1239				
Internal Link Dist (ft)		223			174			89			91	
Turn Bay Length (ft)												
Base Capacity (vph)	322	625			945			2216				
Starvation Cap Reductn	31	47			0			0				
Spillback Cap Reductn	0	0			281			191				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	2.92	3.05			2.21			1.71				

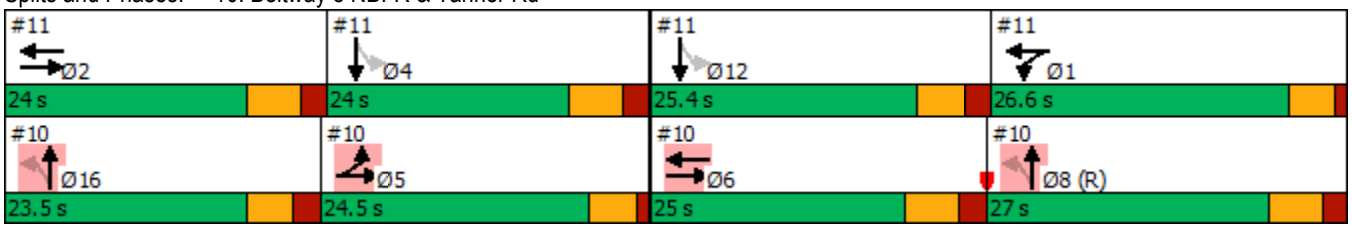
Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.82	
Intersection Signal Delay: 466.1	Intersection LOS: F
Intersection Capacity Utilization 239.6%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

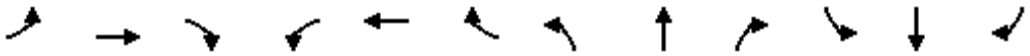
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Beltway 8 NBFR & Tanner Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	26.6	24.0	24.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

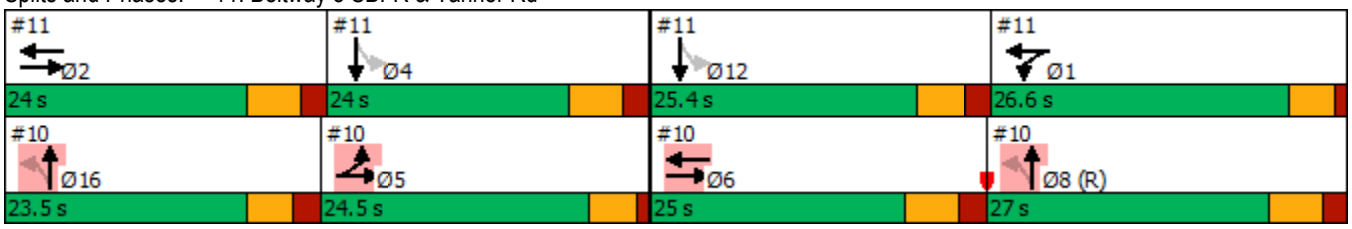


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2095	2876	533	1261	0	0	0	0	311	4169	429
Future Volume (vph)	0	2095	2876	533	1261	0	0	0	0	311	4169	429
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	0	5004	0
Flt Permitted				0.950							0.997	
Satd. Flow (perm)	0	5085	1583	1770	3539	0	0	0	0	0	5004	0
Satd. Flow (RTOR)			268								16	
Lane Group Flow (vph)	0	2277	3126	579	1371	0	0	0	0	0	5336	0
Turn Type		NA	Free	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases			Free							4 12		
Total Split (s)		24.0		26.6								
Total Lost Time (s)		6.0		4.5								
Act Effct Green (s)		18.0	100.0	22.1	44.6						43.4	
Actuated g/C Ratio		0.18	1.00	0.22	0.45						0.43	
v/c Ratio		2.49	1.97	1.48	0.87						2.45	
Control Delay		694.1	455.9	244.6	22.0						672.0	
Queue Delay		4.8	0.0	2.6	49.5						0.3	
Total Delay		698.9	455.9	247.2	71.5						672.3	
LOS		F	F	F	E						F	
Approach Delay		558.3			123.7						672.3	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~889	~2058	~521	432						~2104	
Queue Length 95th (ft)		#984	#2304	m241	m239						#2161	
Internal Link Dist (ft)		1818			223			109			83	
Turn Bay Length (ft)			100									
Base Capacity (vph)		915	1583	391	1578						2180	
Starvation Cap Reductn		0	0	84	799						0	
Spillback Cap Reductn		458	0	0	0						204	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		4.98	1.97	1.89	1.76						2.70	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.82	
Intersection Signal Delay: 539.5	Intersection LOS: F
Intersection Capacity Utilization 239.6%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Beltway 8 SBFR & Tanner Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	24.0	24.5	25.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	4347	644	294	893	283	171	562	247	579	2451	254
Future Volume (vph)	251	4347	644	294	893	283	171	562	247	579	2451	254
Satd. Flow (prot)	1593	3125	0	1593	3071	0	1593	3039	0	1593	3141	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1593	3125	0	1593	3071	0	1593	3039	0	1593	3141	0
Satd. Flow (RTOR)		13			35			56			8	
Lane Group Flow (vph)	273	5425	0	320	1279	0	186	879	0	629	2940	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Total Split (s)	15.0	50.0		20.0	55.0		25.0	53.0		12.0	40.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	9.0	44.0		14.0	49.0		17.8	47.0		6.0	35.2	
Actuated g/C Ratio	0.07	0.33		0.10	0.36		0.13	0.35		0.04	0.26	
v/c Ratio	2.58	5.28		1.94	1.13		0.89	0.80		8.99	3.57	
Control Delay	759.5	1940.0		475.2	107.1		95.3	43.9		3629.0	1175.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	759.5	1940.0		475.2	107.1		95.3	43.9		3629.0	1175.0	
LOS	F	F		F	F		F	D		F	F	
Approach Delay		1883.5			180.8			52.9			1607.5	
Approach LOS		F			F			D			F	
Queue Length 50th (ft)	~400	~4764		~432	~671		161	345		~1080	~2462	
Queue Length 95th (ft)	#581	#4784		#623	#813		#291	431		#1315	#2580	
Internal Link Dist (ft)		951			1818			1813			1031	
Turn Bay Length (ft)	120			120			200			150		
Base Capacity (vph)	106	1027		165	1136		224	1094		70	824	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	2.58	5.28		1.94	1.13		0.83	0.80		8.99	3.57	

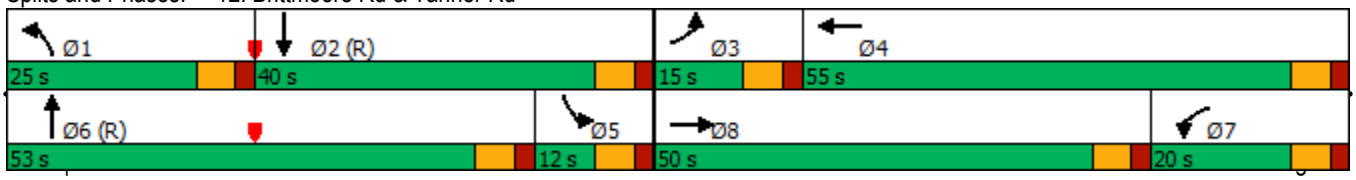
Intersection Summary

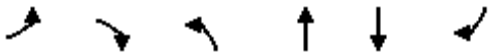
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 29 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 8.99
Intersection Signal Delay: 1409.3 — Intersection LOS: F
Intersection Capacity Utilization 289.2% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

Splits and Phases: 12: Brittmoore Rd & Tanner Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	112	1370	459	828	2647	443
Future Volume (Veh/h)	112	1370	459	828	2647	443
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	122	1489	499	900	2877	482
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	4566	1680	3359			
vC1, stage 1 conf vol	3118					
vC2, stage 2 conf vol	1448					
vCu, unblocked vol	4566	1680	3359			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	0			
cM capacity (veh/h)	0	84	81			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	122	1489	499	450	450	1918	1441
Volume Left	122	0	499	0	0	0	0
Volume Right	0	1489	0	0	0	0	482
cSH	0	84	81	1700	1700	1700	1700
Volume to Capacity	Err	17.79	6.18	0.26	0.26	1.13	0.85
Queue Length 95th (ft)	Err	Err	Err	0	0	0	0
Control Delay (s)	Err	Err	2432.8	0.0	0.0	0.0	0.0
Lane LOS	F	F	F				
Approach Delay (s)	Err		867.7			0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	178.8%	ICU Level of Service	H
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	279	1937	206	356	3255	121	340	1970	1204	142	580	411
Future Volume (vph)	279	1937	206	356	3255	121	340	1970	1204	142	580	411
Satd. Flow (prot)	1770	3490	0	1770	3522	0	1770	3337	0	1770	3320	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3490	0	1770	3522	0	1770	3337	0	1770	3320	0
Satd. Flow (RTOR)		11			4			85			113	
Lane Group Flow (vph)	303	2329	0	387	3670	0	370	3450	0	154	1077	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	18.0	67.0		18.0	67.0		22.0	32.0		18.0	28.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	12.0	61.0		12.0	61.0		16.0	26.0		12.0	22.0	
Actuated g/C Ratio	0.09	0.45		0.09	0.45		0.12	0.19		0.09	0.16	
v/c Ratio	1.93	1.47		2.46	2.30		1.77	4.85		0.98	1.70	
Control Delay	472.5	246.0		685.2	608.3		399.1	1748.6		127.7	350.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	472.5	246.0		685.2	608.3		399.1	1748.6		127.7	350.6	
LOS	F	F		F	F		F	F		F	F	
Approach Delay		272.1			615.6			1617.9			322.8	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~408	~1480		~567	~2776		~483	~2970		137	~686	
Queue Length 95th (ft)	#596	#1613		m#260	m#1245		#683	#3071		#281	#826	
Internal Link Dist (ft)		996			1105			1257			271	
Turn Bay Length (ft)	100			130			150			100		
Base Capacity (vph)	157	1582		157	1593		209	711		157	635	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.93	1.47		2.46	2.30		1.77	4.85		0.98	1.70	

Intersection Summary

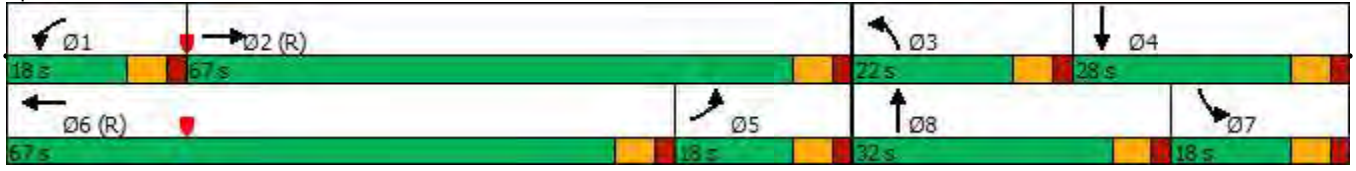
Cycle Length: 135
Actuated Cycle Length: 135
Offset: 51 (38%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 4.85
Intersection Signal Delay: 834.0 Intersection LOS: F
Intersection Capacity Utilization 230.2% ICU Level of Service H
Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Brittmoore Rd & W Little York Rd

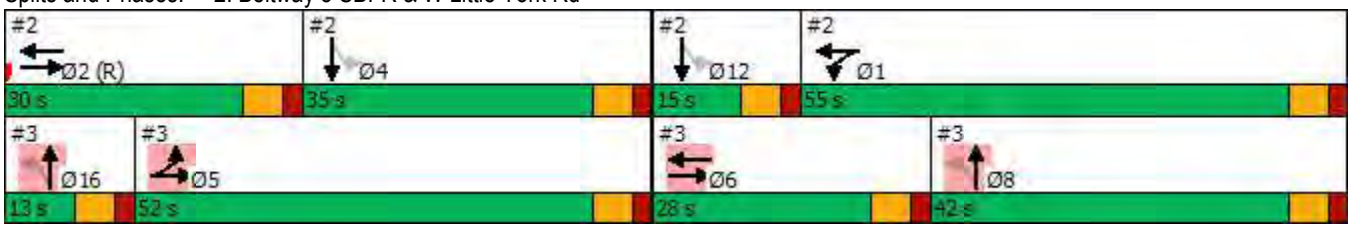


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	2784	411	870	2481	0	0	0	0	103	4682	1460
Future Volume (vph)	0	2784	411	870	2481	0	0	0	0	103	4682	1460
Satd. Flow (prot)	0	4989	0	1770	3539	0	0	0	0	0	4902	0
Flt Permitted				0.950							0.999	
Satd. Flow (perm)	0	4989	0	1770	3539	0	0	0	0	0	4902	0
Satd. Flow (RTOR)		17									2	
Lane Group Flow (vph)	0	3473	0	946	2697	0	0	0	0	0	6788	0
Turn Type		NA		Prot	NA					Perm	NA	
Protected Phases		2		1	1 2						4 12	
Permitted Phases										4 12		
Total Split (s)		30.0		55.0								
Total Lost Time (s)		6.0		6.0								
Act Effct Green (s)		24.0		49.0	79.0						44.0	
Actuated g/C Ratio		0.18		0.36	0.59						0.33	
v/c Ratio		3.86		1.47	1.30						4.25	
Control Delay		1301.3		237.5	167.4						1475.1	
Queue Delay		3.6		9.3	4.5						0.0	
Total Delay		1304.9		246.8	171.9						1475.1	
LOS		F		F	F						F	
Approach Delay		1304.9			191.4						1475.1	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~2012		~1159	~1640						~4044	
Queue Length 95th (ft)		m#897		m283	m398						#4010	
Internal Link Dist (ft)		310			159			74			85	
Turn Bay Length (ft)												
Base Capacity (vph)		900		642	2070						1599	
Starvation Cap Reductn		0		392	1356						0	
Spillback Cap Reductn		382		0	0						0	
Storage Cap Reductn		0		0	0						0	
Reduced v/c Ratio		6.70		3.78	3.78						4.25	

Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 5.68	
Intersection Signal Delay: 1096.2	Intersection LOS: F
Intersection Capacity Utilization 398.9%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Beltway 8 SBFR & W Little York Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	35.0	52.0	28.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1656	1231	0	0	2924	162	427	8349	660	0	0	0
Future Volume (vph)	1656	1231	0	0	2924	162	427	8349	660	0	0	0
Satd. Flow (prot)	1770	3539	0	0	5045	0	1522	4753	0	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	1770	3539	0	0	5045	0	1522	4753	0	0	0	0
Satd. Flow (RTOR)								10				
Lane Group Flow (vph)	1800	1338	0	0	3354	0	418	9838	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	5 6			6			8 16				
Permitted Phases							8 16					
Total Split (s)	52.0				28.0							
Total Lost Time (s)	6.0				6.0							
Act Effct Green (s)	46.0	74.0			22.0		49.0	49.0				
Actuated g/C Ratio	0.34	0.55			0.16		0.36	0.36				
v/c Ratio	2.99	0.69			4.08		0.76	5.68				
Control Delay	909.4	21.7			1403.5		48.1	2118.8				
Queue Delay	11.4	56.8			6.9		0.0	0.0				
Total Delay	920.9	78.5			1410.4		48.1	2118.8				
LOS	F	E			F		D	F				
Approach Delay		561.7			1410.4			2034.4				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~2805	646			~1962		372	~6413				
Queue Length 95th (ft)	m429	m44			#2033		530	#6252				
Internal Link Dist (ft)		159			353			68			75	
Turn Bay Length (ft)												
Base Capacity (vph)	603	1939			822		552	1731				
Starvation Cap Reductn	394	1565			0		0	0				
Spillback Cap Reductn	0	0			476		0	0				
Storage Cap Reductn	0	0			0		0	0				
Reduced v/c Ratio	8.61	3.58			9.69		0.76	5.68				

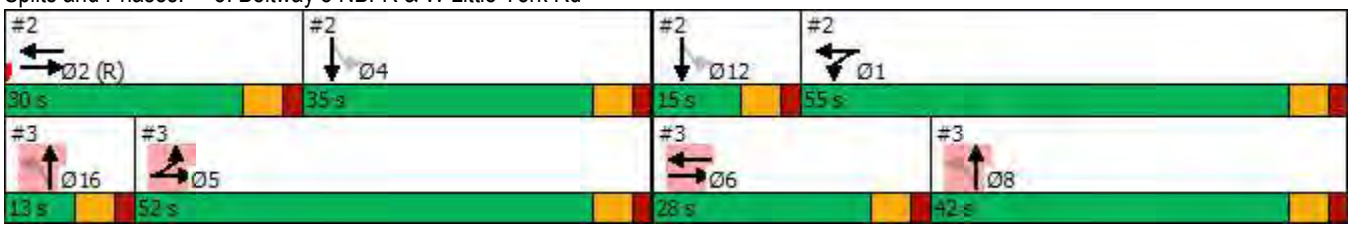
Intersection Summary	
Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 0 (0%), Referenced to phase 2:EBWB, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 5.68	
Intersection Signal Delay: 1633.5	Intersection LOS: F
Intersection Capacity Utilization 399.9%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Beltway 8 NBFR & W Little York Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	55.0	30.0	35.0	42.0	15.0	13.0
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

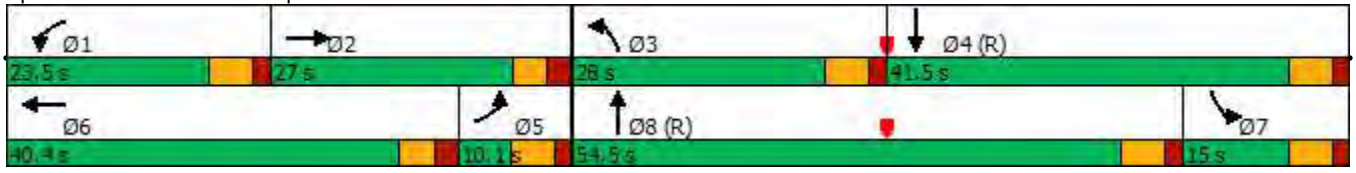
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	1300	541	25	1195	43	1407	1337	576	137	304	66
Future Volume (vph)	18	1300	541	25	1195	43	1407	1337	576	137	304	66
Satd. Flow (prot)	1770	3383	0	1770	3522	0	1770	3380	0	1770	3444	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3383	0	1770	3522	0	1770	3380	0	1770	3444	0
Satd. Flow (RTOR)		46			3			68			22	
Lane Group Flow (vph)	20	2001	0	27	1346	0	1529	2079	0	149	402	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Total Split (s)	10.1	27.0		23.5	40.4		28.0	54.5		15.0	41.5	
Total Lost Time (s)	5.5	5.4		5.5	5.4		5.5	5.5		5.5	5.5	
Act Effct Green (s)	4.6	21.6		18.0	35.0		22.5	49.0		9.5	36.0	
Actuated g/C Ratio	0.04	0.18		0.15	0.29		0.19	0.41		0.08	0.30	
v/c Ratio	0.30	3.10		0.10	1.31		4.62	1.46		1.06	0.38	
Control Delay	67.7	965.9		45.2	181.2		1641.1	232.9		146.7	32.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	67.7	965.9		45.2	181.2		1641.1	232.9		146.7	32.6	
LOS	E	F		D	F		F	F		F	C	
Approach Delay		957.0			178.6			829.6			63.5	
Approach LOS		F			F			F			E	
Queue Length 50th (ft)	15	~1426		18	~708		~2186	~1168		~127	122	
Queue Length 95th (ft)	42	#1566		46	#849		m#870	m350		#263	168	
Internal Link Dist (ft)		473			1258			257			824	
Turn Bay Length (ft)	320			150			160			150		
Base Capacity (vph)	67	646		265	1029		331	1420		140	1048	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.30	3.10		0.10	1.31		4.62	1.46		1.06	0.38	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 4:SBT and 8:NBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.62	
Intersection Signal Delay: 689.5	Intersection LOS: F
Intersection Capacity Utilization 155.4%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hempstead Rd & W Little York Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	363	5943	767	1515	1632	0	0	1169	64
Future Volume (vph)	0	0	0	363	5943	767	1515	1632	0	0	1169	64
Satd. Flow (prot)	0	0	0	1610	3390	1583	1610	3353	0	0	5045	0
Flt Permitted				0.950			0.950	0.568				
Satd. Flow (perm)	0	0	0	1610	3390	1583	1610	1926	0	0	5045	0
Satd. Flow (RTOR)						142						
Lane Group Flow (vph)	0	0	0	355	6500	834	1120	2301	0	0	1341	0
Turn Type				Perm	NA	Perm	Prot	NA			NA	
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12		4 12						
Total Split (s)							31.5				26.9	
Total Lost Time (s)							5.5				5.9	
Act Effct Green (s)				54.9	54.9	54.9	26.0	47.4			21.0	
Actuated g/C Ratio				0.46	0.46	0.46	0.22	0.40			0.18	
v/c Ratio				0.48	4.19	1.04	3.22	3.08			1.52	
Control Delay				25.4	1451.4	70.4	1014.2	950.1			274.9	
Queue Delay				0.2	0.2	0.0	3.7	2.3			3.6	
Total Delay				25.6	1451.6	70.4	1017.9	952.3			278.5	
LOS				C	F	E	F	F			F	
Approach Delay					1235.9			973.8			278.5	
Approach LOS					F			F			F	
Queue Length 50th (ft)				205	~5069	~635	~1715	~1736			~531	
Queue Length 95th (ft)				302	#5072	#883	m#497	m#468			#627	
Internal Link Dist (ft)		78			52			183			787	
Turn Bay Length (ft)												
Base Capacity (vph)				736	1550	801	348	748			882	
Starvation Cap Reductn				0	0	0	93	210			0	
Spillback Cap Reductn				62	98	0	0	0			367	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.53	4.48	1.04	4.39	4.28			2.60	

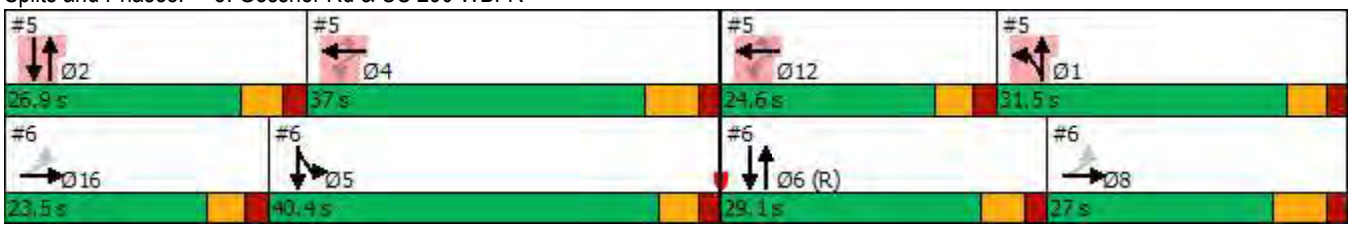
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.43	
Intersection Signal Delay: 1060.8	Intersection LOS: F
Intersection Capacity Utilization 313.9%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

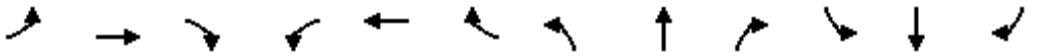
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Gessner Rd & US 290 WBFR



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	37.0	40.4	29.1	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

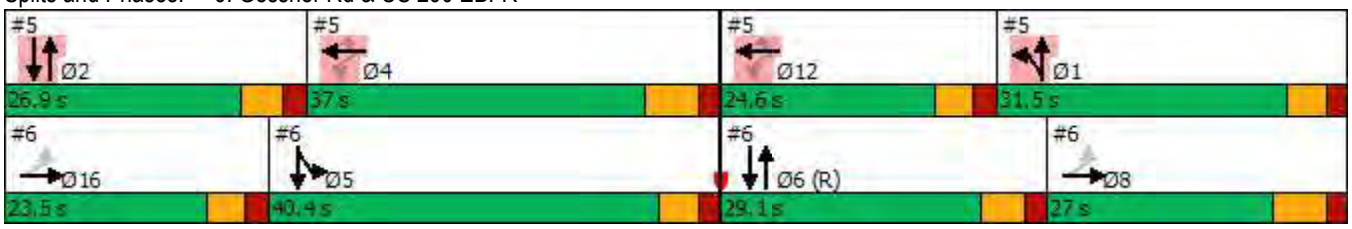


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	423	4660	315	0	0	0	0	2722	291	582	949	0
Future Volume (vph)	423	4660	315	0	0	0	0	2722	291	582	949	0
Satd. Flow (prot)	1610	3360	0	0	0	0	0	5014	0	1610	3377	0
Flt Permitted	0.950									0.950	0.515	
Satd. Flow (perm)	1610	3360	0	0	0	0	0	5014	0	1610	1746	0
Satd. Flow (RTOR)		6						13				
Lane Group Flow (vph)	414	5453	0	0	0	0	0	3275	0	538	1127	0
Turn Type	Perm	NA						NA		Prot	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16											
Total Split (s)								29.1		40.4		
Total Lost Time (s)								5.9		5.5		
Act Effct Green (s)	43.8	43.8						23.2		34.9	34.9	
Actuated g/C Ratio	0.36	0.36						0.19		0.29	0.29	
v/c Ratio	0.71	4.43						3.35		1.15	1.15	
Control Delay	40.4	1559.3						1073.0		96.4	93.8	
Queue Delay	1.2	0.3						6.0		4.9	3.1	
Total Delay	41.6	1559.6						1079.0		101.3	96.9	
LOS	D	F						F		F	F	
Approach Delay		1452.5						1079.0			98.3	
Approach LOS		F						F			F	
Queue Length 50th (ft)	298	~4346						~1668		~553	~579	
Queue Length 95th (ft)	431	#4393						m#766		m351	m354	
Internal Link Dist (ft)		77			77			1992			183	
Turn Bay Length (ft)												
Base Capacity (vph)	587	1230						979		468	982	
Starvation Cap Reductn	0	0						0		177	391	
Spillback Cap Reductn	53	84						565		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.78	4.76						7.91		1.85	1.91	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 79 (66%), Referenced to phase 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.43	
Intersection Signal Delay: 1130.7	Intersection LOS: F
Intersection Capacity Utilization 313.9%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Gessner Rd & US 290 EBFR



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	31.5	26.9	37.0	27.0	24.6	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

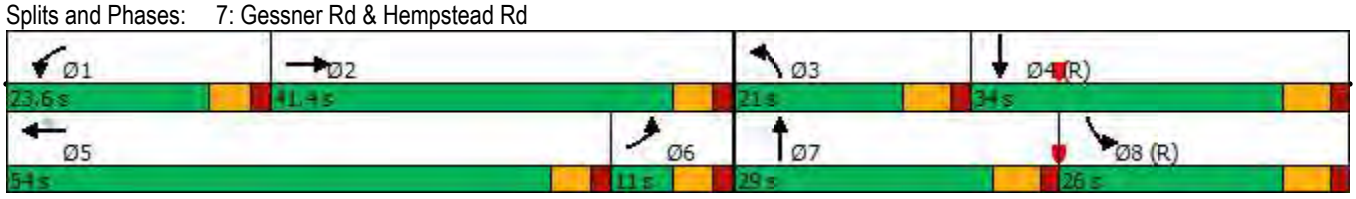
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	724	235	308	3257	1313	357	1439	156	368	921	224
Future Volume (vph)	23	724	235	308	3257	1313	357	1439	156	368	921	224
Satd. Flow (prot)	1770	3408	0	1770	3539	1583	1770	3486	0	1770	3437	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3408	0	1770	3539	1583	1770	3486	0	1770	3437	0
Satd. Flow (RTOR)		37				309		8			23	
Lane Group Flow (vph)	25	1042	0	335	3540	1427	388	1734	0	400	1244	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	6	2		1	5		3	7		8	4	
Permitted Phases						5						
Total Split (s)	11.0	41.4		23.6	54.0	54.0	21.0	29.0		26.0	34.0	
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	6.0	6.0		6.0	6.0	
Act Effct Green (s)	5.3	35.9		18.1	52.9	52.9	15.0	23.0		20.0	28.0	
Actuated g/C Ratio	0.04	0.30		0.15	0.44	0.44	0.12	0.19		0.17	0.23	
v/c Ratio	0.32	1.00		1.26	2.27	1.64	1.76	2.57		1.36	1.52	
Control Delay	62.2	52.7		185.4	594.7	315.7	363.8	726.2		201.2	267.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	62.2	52.7		185.4	594.7	315.7	363.8	726.2		201.2	267.1	
LOS	E	D		F	F	F	F	F		F	F	
Approach Delay		52.9			493.8			659.9			251.1	
Approach LOS		D			F			F			F	
Queue Length 50th (ft)	20	438		~325	~2396	~1499	~457	~1222		~420	~721	
Queue Length 95th (ft)	m26	m285		#510	#2504	#1766	m#227	m#618		m#292	m#480	
Internal Link Dist (ft)		196			702			311			1992	
Turn Bay Length (ft)	100			100		175	200			120		
Base Capacity (vph)	81	1045		266	1560	870	221	674		295	819	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	1.00		1.26	2.27	1.64	1.76	2.57		1.36	1.52	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 4:SBT and 8:SBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.57
Intersection Signal Delay: 442.8 — Intersection LOS: F
Intersection Capacity Utilization 178.5% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Gessner Rd & Hempstead Rd



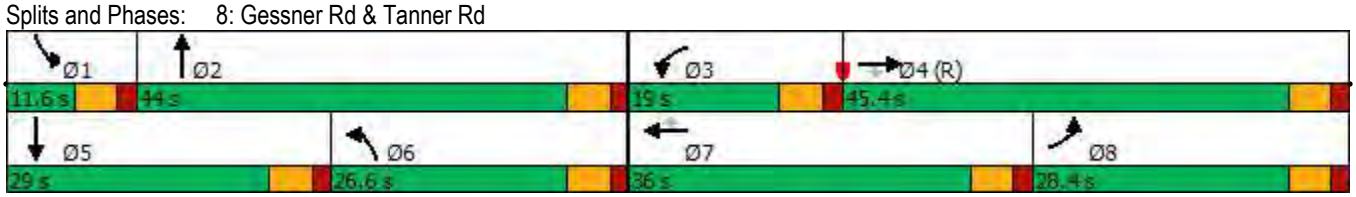
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	663	305	187	1290	137	292	1836	174	57	1233	592
Future Volume (vph)	204	663	305	187	1290	137	292	1836	174	57	1233	592
Satd. Flow (prot)	1652	1863	1583	1652	1863	1583	1652	3493	0	1652	3366	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1652	1863	1583	1652	1863	1583	1652	3493	0	1652	3366	0
Satd. Flow (RTOR)			176			176		9			60	
Lane Group Flow (vph)	222	721	332	203	1402	149	317	2185	0	62	1983	0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	8	4		3	7		6	2		1	5	
Permitted Phases			4			7						
Total Split (s)	28.4	45.4	45.4	19.0	36.0	36.0	26.6	44.0		11.6	29.0	
Total Lost Time (s)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6		5.6	5.6	
Act Effct Green (s)	22.8	39.8	39.8	13.4	30.4	30.4	21.0	38.4		6.0	23.4	
Actuated g/C Ratio	0.19	0.33	0.33	0.11	0.25	0.25	0.18	0.32		0.05	0.20	
v/c Ratio	0.71	1.17	0.52	1.10	2.98	0.28	1.10	1.95		0.76	2.82	
Control Delay	59.1	129.3	17.7	145.8	913.6	4.4	127.6	454.5		53.9	835.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	59.1	129.3	17.7	145.8	913.6	4.4	127.6	454.5		53.9	835.9	
LOS	E	F	B	F	F	A	F	F		D	F	
Approach Delay		88.0			747.5			413.1			812.2	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	162	~664	93	~179	~1879	0	~278	~1389		48	~1404	
Queue Length 95th (ft)	#263	#900	184	#332	#2142	34	#459	#1527		m49	m#1088	
Internal Link Dist (ft)		115			125			620			3415	
Turn Bay Length (ft)			50			50	200			200		
Base Capacity (vph)	313	617	642	184	471	532	289	1123		82	704	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.71	1.17	0.52	1.10	2.98	0.28	1.10	1.95		0.76	2.82	

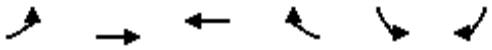
Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 54 (45%), Referenced to phase 4:EBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.98
Intersection Signal Delay: 543.5 — Intersection LOS: F
Intersection Capacity Utilization 167.1% — ICU Level of Service H
Analysis Period (min) 15

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Gessner Rd & Tanner Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	1140	2248	14	10	77
Future Volume (Veh/h)	21	1140	2248	14	10	77
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	1239	2443	15	11	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1141				
pX, platoon unblocked					0.64	
vC, conflicting volume	2458				3736	2450
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2458				5019	2450
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	88				0	0
cM capacity (veh/h)	189				0	40

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	1262	2458	95
Volume Left	23	0	11
Volume Right	0	15	84
cSH	189	1700	3
Volume to Capacity	0.12	1.45	32.17
Queue Length 95th (ft)	10	0	Err
Control Delay (s)	12.2	0.0	Err
Lane LOS	B		F
Approach Delay (s)	12.2	0.0	Err
Approach LOS			F

Intersection Summary			
Average Delay	253.0		
Intersection Capacity Utilization	131.1%	ICU Level of Service	H
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	560	866	0	0	2202	313	1377	4086	494	0	0	0
Future Volume (vph)	560	866	0	0	2202	313	1377	4086	494	0	0	0
Satd. Flow (prot)	1610	3373	0	0	4989	0	0	4969	0	0	0	0
Flt Permitted	0.950	0.538						0.989				
Satd. Flow (perm)	1610	1824	0	0	4989	0	0	4969	0	0	0	0
Satd. Flow (RTOR)					5			19				
Lane Group Flow (vph)	499	1051	0	0	2733	0	0	6475	0	0	0	0
Turn Type	Prot	NA			NA		Perm	NA				
Protected Phases	5	6 5			6			8 16				
Permitted Phases							8 16					
Total Split (s)	24.5				25.0							
Total Lost Time (s)	4.5				6.0							
Act Effct Green (s)	20.0	37.5			19.0			44.5				
Actuated g/C Ratio	0.20	0.38			0.19			0.44				
v/c Ratio	1.55	1.67			2.87			2.92				
Control Delay	272.3	326.3			864.6			879.9				
Queue Delay	1.2	0.0			5.0			0.2				
Total Delay	273.5	326.3			869.6			880.1				
LOS	F	F			F			F				
Approach Delay		309.3			869.6			880.1				
Approach LOS		F			F			F				
Queue Length 50th (ft)	~510	~555			~1119			~2661				
Queue Length 95th (ft)	m#262	m#294			#1215			#2694				
Internal Link Dist (ft)		223			174			89			91	
Turn Bay Length (ft)												
Base Capacity (vph)	322	628			951			2221				
Starvation Cap Reductn	31	0			0			0				
Spillback Cap Reductn	0	0			495			191				
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	1.71	1.67			5.99			3.19				

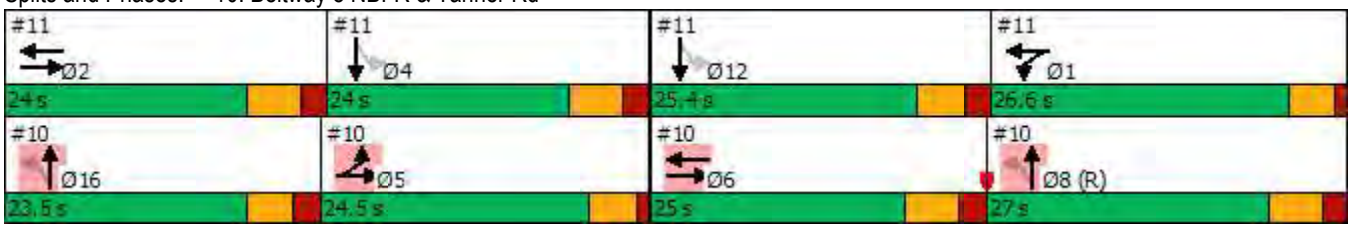
Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.92	
Intersection Signal Delay: 795.2	Intersection LOS: F
Intersection Capacity Utilization 268.2%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.

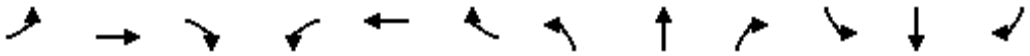
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Beltway 8 NBFR & Tanner Rd



Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Total Split (s)	26.6	24.0	24.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

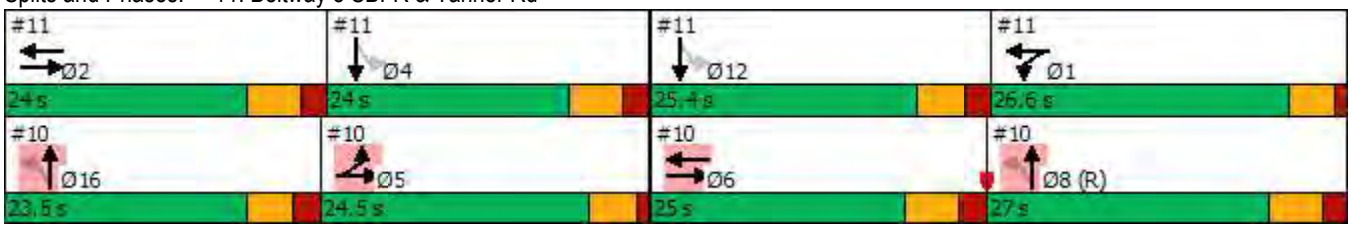


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1229	621	683	2897	0	0	0	0	198	2168	886
Future Volume (vph)	0	1229	621	683	2897	0	0	0	0	198	2168	886
Satd. Flow (prot)	0	5085	1583	1770	3539	0	0	0	0	0	4862	0
Flt Permitted				0.950							0.997	
Satd. Flow (perm)	0	5085	1583	1770	3539	0	0	0	0	0	4862	0
Satd. Flow (RTOR)			248									
Lane Group Flow (vph)	0	1336	675	742	3149	0	0	0	0	0	3535	0
Turn Type		NA	Free	Prot	NA					Perm	NA	
Protected Phases		2		1	2 1						4 12	
Permitted Phases			Free							4 12		
Total Split (s)		24.0		26.6								
Total Lost Time (s)		6.0		4.5								
Act Effct Green (s)		18.0	100.0	22.1	44.6						43.4	
Actuated g/C Ratio		0.18	1.00	0.22	0.45						0.43	
v/c Ratio		1.46	0.43	1.90	2.00						1.68	
Control Delay		245.3	0.8	428.3	468.9						330.5	
Queue Delay		2.6	0.0	2.8	2.7						0.3	
Total Delay		247.8	0.8	431.1	471.6						330.8	
LOS		F	A	F	F						F	
Approach Delay		164.9			463.9						330.8	
Approach LOS		F			F						F	
Queue Length 50th (ft)		~429	0	~741	~1687						~1211	
Queue Length 95th (ft)		#522	0	m155	m306						#1297	
Internal Link Dist (ft)		1818			223			109			83	
Turn Bay Length (ft)			100									
Base Capacity (vph)		915	1583	391	1578						2110	
Starvation Cap Reductn		0	0	89	733						0	
Spillback Cap Reductn		312	0	0	0						197	
Storage Cap Reductn		0	0	0	0						0	
Reduced v/c Ratio		2.22	0.43	2.46	3.73						1.85	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 4 (4%), Referenced to phase 8:NBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.92	
Intersection Signal Delay: 350.3	Intersection LOS: F
Intersection Capacity Utilization 268.2%	ICU Level of Service H
Analysis Period (min) 15	

~ 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Beltway 8 SBFR & Tanner Rd



Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Total Split (s)	24.0	24.5	25.0	27.0	25.4	23.5
Total Lost Time (s)						
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

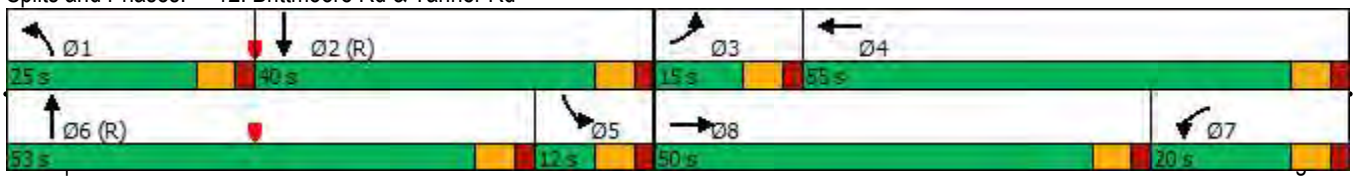
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	340	1135	132	172	2908	519	747	2494	454	212	767	274
Future Volume (vph)	340	1135	132	172	2908	519	747	2494	454	212	767	274
Satd. Flow (prot)	1593	3134	0	1593	3112	0	1593	3112	0	1593	3061	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1593	3134	0	1593	3112	0	1593	3112	0	1593	3061	0
Satd. Flow (RTOR)		10			17			17			36	
Lane Group Flow (vph)	370	1377	0	187	3725	0	812	3204	0	230	1132	0
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												
Total Split (s)	15.0	50.0		20.0	55.0		25.0	53.0		12.0	40.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	9.0	44.0		14.0	49.0		19.0	47.0		6.0	34.0	
Actuated g/C Ratio	0.07	0.33		0.10	0.36		0.14	0.35		0.04	0.25	
v/c Ratio	3.49	1.34		1.13	3.27		3.62	2.93		3.29	1.42	
Control Delay	1161.5	195.8		163.3	1039.4		1208.6	888.9		1083.0	232.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	1161.5	195.8		163.3	1039.4		1208.6	888.9		1083.0	232.9	
LOS	F	F		F	F		F	F		F	F	
Approach Delay		400.4			997.5			953.6			376.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~577	~828		~190	~3054		~1274	~2570		~354	~693	
Queue Length 95th (ft)	#777	#970		#347	#3145		#1523	#2680		#523	#833	
Internal Link Dist (ft)		951			1818			1813			1031	
Turn Bay Length (ft)	120			120			200			150		
Base Capacity (vph)	106	1028		165	1140		224	1094		70	797	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	3.49	1.34		1.13	3.27		3.63	2.93		3.29	1.42	

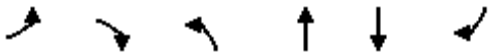
Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 29 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.63
Intersection Signal Delay: 810.4 — Intersection LOS: F
Intersection Capacity Utilization 254.4% — ICU Level of Service H
Analysis Period (min) 15

~ 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.

Splits and Phases: 12: Brittmoore Rd & Tanner Rd





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	420	459	797	3024	981	126
Future Volume (Veh/h)	420	459	797	3024	981	126
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	457	499	866	3287	1066	137
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	4510	602	1203			
vC1, stage 1 conf vol	1134					
vC2, stage 2 conf vol	3376					
vCu, unblocked vol	4510	602	1203			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	0			
cM capacity (veh/h)	0	443	576			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	457	499	866	1644	1644	711	492
Volume Left	457	0	866	0	0	0	0
Volume Right	0	499	0	0	0	0	137
cSH	0	443	576	1700	1700	1700	1700
Volume to Capacity	Err	1.13	1.50	0.97	0.97	0.42	0.29
Queue Length 95th (ft)	Err	440	1093	0	0	0	0
Control Delay (s)	Err	111.7	255.3	0.0	0.0	0.0	0.0
Lane LOS	F	F	F				
Approach Delay (s)	Err		53.2			0.0	
Approach LOS	F						

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	113.5%	ICU Level of Service	H
Analysis Period (min)	15		

Appendix F
Signal Timings

1315 - Hempstead @ Little York Park & Ride

Control Table Info

Description	Hempstead @ Metro P&R (16,077)
Created By	
Created On	
Modified By	unknown
Modified On	03/23/05 08:35:36

NextPhase 1.7.2 Control Params

Control Mode	remote
Manual Plan	1: off peak
Free Plan	1: off peak
Default Schedule	1: TSTOP 2010-2011

Schedule Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	TSTOP 2010-2011	trf_ctrl	08/23/01 15:52:32	unknown	04/03/14 09:59:19

Schedule Table 1 Params

Event	Enable	Hour	Minute	Day Of Week							CtrMode	Plan
				Su	Mo	Tu	We	Th	Fr	Sa		
1	X	5	45	X	X	X	X	X	X	X	sched	1
2	X	6	0		X	X	X	X	X		sched	2
3	X	9	0	X	X	X	X	X	X	X	sched	4
4	X	11	0		X	X	X	X	X		sched	4
5	X	13	0		X	X	X	X	X		sched	4
6	X	15	0		X	X	X	X	X		sched	3
7	X	19	0		X	X	X	X	X		sched	1
8	X	21	0	X	X	X	X	X	X	X	sched	1
9		0	0								sched	0
10		0	0								sched	0
11		0	0								sched	0
12		0	0								sched	0
13		0	0								sched	0
14		0	0								sched	0
15		0	0								sched	0
16		0	0								sched	0
17		0	0								sched	0
18		0	0								sched	0
19		0	0								sched	0
20		0	0								sched	0
21		0	0								sched	0
22		0	0								sched	0
23		0	0								sched	0
24		0	0								sched	0
25		0	0								sched	0
26		0	0								sched	0
27		0	0								sched	0
28		0	0								sched	0
29		0	0								sched	0
30		0	0								sched	0
31		0	0								sched	0
32		0	0								sched	0
33		0	0								sched	0
34		0	0								sched	0

1315 - Hempstead @ Little York Park & Ride

Parameters Holiday Floating

Holiday	Enable	Month	Week	Day of Week							Schedule	Description
				Su	Mo	Tu	We	Th	Fr	Sa		
5		1	1								1: TSTOP 2010-2011	
6		1	1								1: TSTOP 2010-2011	
7		1	1								1: TSTOP 2010-2011	
8		1	1								1: TSTOP 2010-2011	
9		1	1								1: TSTOP 2010-2011	
10		1	1								1: TSTOP 2010-2011	
11		1	1								1: TSTOP 2010-2011	
12		1	1								1: TSTOP 2010-2011	
13		1	1								1: TSTOP 2010-2011	
14		1	1								1: TSTOP 2010-2011	
15		1	1								1: TSTOP 2010-2011	
16		1	1								1: TSTOP 2010-2011	
17		1	1								1: TSTOP 2010-2011	
18		1	1								1: TSTOP 2010-2011	
19		1	1								1: TSTOP 2010-2011	
20		1	1								1: TSTOP 2010-2011	

Plan Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	off peak	Steve	01/17/00 11:33:03	unknown	03/02/10 15:14:55
2	am peak	WPM	07/23/2002 10:12:36	unknown	03/03/10 08:27:45
3	pm peak	WPM	07/23/2002 10:13:39	unknown	03/02/10 17:20:41
4	MIDDAY 120	unknown	05/02/13 10:26:26	unknown	05/02/13 10:27:35

Plan Table 1 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence	Overlap	Prioritor	Config
coord	max1	seconds	1: Phase/timing	1: Standard Leading Left	1: Overlaps	1:	1: configuration table

Plan Table 1 Params

Cycle Length	Permissive	SpcFcn								AuxFcn								Prioritor Disable									
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10
90	30																										

Plan Table 1 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord				X				X												
Hold																				

Plan Table 1 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

1315 - Hempstead @ Little York Park & Ride

June 5, 2020

Plan Table 1 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	0	0	0	20	0	10	10	20	0	0	0	0	0	0	0
CordNom	0	15	0	75	0	15	15	60	0	0	0	0	0	0	0
CordMax	0	0	0	85	0	20	20	65	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	b	None	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Offsets

Offset	12	13	14	15	16	17	18	19	20
Barrier	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0

Plan Table 2 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence	Overlap	Prioritor	Config
coord	max1	seconds	1: Phase/timing	1: Standard Leading Left	1: Overlaps	1:	1: configuration table

Plan Table 2 Params

Cycle Length	Permissive	SpcFcn								AuxFcn								Prioritor Disable									
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10
120	40																										

1315 - Hempstead @ Little York Park & Ride

Plan Table 2 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord				X				X												
Hold																				

Plan Table 2 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

Plan Table 2 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	0	0	0	40	0	15	10	40	0	0	0	0	0	0	0
CordNom	0	20	0	100	0	20	25	75	0	0	0	0	0	0	0
CordMax	0	0	0	105	0	25	30	85	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	b	None	None	None	None	None	None	None	None	None	None
Value	25	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Offsets

Offset	12	13	14	15	16	17	18	19	20
Barrier	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0

1315 - Hempstead @ Little York Park & Ride

Plan Table 3 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence	Overlap	Prioritor	Config
coord	max1	seconds	1: Phase/timing	1: Standard Leading Left	1: Overlaps	1:	1: configuration table

Plan Table 3 Params

Cycle Length	Permissive	SpcFcn								AuxFcn								Prioritor Disable									
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10
120	40																										

Plan Table 3 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord				X				X												
Hold																				

Plan Table 3 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

Plan Table 3 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	0	0	0	40	0	15	10	40	0	0	0	0	0	0	0
CordNom	0	30	0	90	0	30	12	78	0	0	0	0	0	0	0
CordMax	0	0	0	100	0	35	20	95	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

1315 - Hempstead @ Little York Park & Ride

Phase Table 1 Timing

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MinGrn	0	0	0	10	0	4	4	10	0	0	0	0	0	0	0
Passage	0.0	0.0	0.0	3.0	0.0	2.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MinTerm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max1	0	0	0	80	0	35	25	80	0	0	0	0	0	0	0
Max2	0	0	0	80	0	35	25	80	0	0	0	0	0	0	0
CSMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YelClr	0.0	0.0	0.0	3.9	0.0	3.2	3.9	3.9	0.0	0.0	0.0	0.0	0.0	0.0	2.0
RedClr	0.0	0.0	0.0	1.6	0.0	2.2	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PedClr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MinGap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MxInit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Phase Table 1 Timing

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
MinGrn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MinTerm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CSMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YelClr	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
RedClr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PedClr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TBR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MinGap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MxInit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1315 - Hempstead @ Little York Park & Ride

Phase Config Table 1 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Startup																				
YelStart																				
RedStart																				
SecStart																				
Ped																				
YelFlash																				
AltFlsHz																				
FlsEntry																				
FlsExit																				
NoCall																				
MCEOmit																				

Phase Config Table 1 Misc

Startup Flash	0
Red Revert	3
FlashClearance	3
Ring Groups	one

Phase Config Table 1 Ring

Ring	Ring
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Detector Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	detectors	Steve	01/17/00 11:32:41	Mike	03/23/05 08:32:48

1317 - Gessner @ Hempstead [ITS 340] (1)

Control Table Info

Description	1317 Gessner @ Hempstead
Created By	CastaneR
Created On	02/10/05 13:55:39
Modified By	CastaneR
Modified On	02/10/05 13:55:39

NextPhase 1.7.5 Control Params

Control Mode	remote
Manual Plan	1: OFF PEAK 90
Free Plan	1: OFF PEAK 90
Default Schedule	1: TSTOP 2010-2011

Schedule Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	TSTOP 2010-2011	trf_ctrl	08/23/01 15:52:32	unknown	04/23/14 11:04:56

Schedule Table 1 Params

Event	Enable	Hour	Minute	Day Of Week							CtrMode	Plan
				Su	Mo	Tu	We	Th	Fr	Sa		
1	X	5	45	X	X	X	X	X	X	X	sched	1
2	X	6	0		X	X	X	X	X		sched	2
3	X	9	0	X	X	X	X	X	X	X	sched	4
4	X	11	0		X	X	X	X	X		sched	4
5	X	13	0		X	X	X	X	X		sched	4
6	X	15	0		X	X	X	X	X		sched	3
7	X	19	0		X	X	X	X	X		sched	1
8	X	21	0	X	X	X	X	X	X	X	sched	1
9		0	0								sched	0
10		0	0								sched	0
11		0	0								sched	0
12		0	0								sched	0
13		0	0								sched	0
14		0	0								sched	0
15		0	0								sched	0
16		0	0								sched	0
17		0	0								sched	0
18		0	0								sched	0
19		0	0								sched	0
20		0	0								sched	0
21		0	0								sched	0
22		0	0								sched	0
23		0	0								sched	0
24		0	0								sched	0
25		0	0								sched	0
26		0	0								sched	0
27		0	0								sched	0
28		0	0								sched	0
29		0	0								sched	0
30		0	0								sched	0
31		0	0								sched	0
32		0	0								sched	0
33		0	0								sched	0
34		0	0								sched	0

NextEdit

1317 - Gessner @ Hempstead [ITS 340] (1)

Schedule Table 1 Params

Event	Enable	Hour	Minute	Day Of Week							CtrMode	Plan
				Su	Mo	Tu	We	Th	Fr	Sa		
35		0	0								sched	0
36		0	0								sched	0
37		0	0								sched	0
38		0	0								sched	0
39		0	0								sched	0
40		0	0								sched	0

Schedule Table 1 Params

Event	SpcFcn								AuxFcn								Description
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
1																	OFF PEAK 90
2																	AM PEAK 120
3																	OFF PEAK 90
4																	
5																	
6																	PM PEAK 120
7																	OFF PEAK 90
8																	OFF PEAK 90
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	
21																	
22																	
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33																	
34																	
35																	

NextEdit

1317 - Gessner @ Hempstead [ITS 340] (1)

Plan Table 1 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	10	20	12	20	10	20	10	20	0	0	0	0	0	0	0
CordNom	15	32	18	25	15	32	12	31	0	0	0	0	0	0	0
CordMax	20	40	25	40	20	40	20	40	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	b	None	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0	0	0

Plan Table 1 Offsets

Offset	12	13	14	15	16	17	18	19	20
Barrier	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0

Plan Table 2 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence	Overlap	Prioritor	Config
coord	max2	seconds	1: phase/timing	3: Lag 1 & 3	1: Overlap	1:	1: configuration table

Plan Table 2 Params

Cycle Length	Permissive	SpcFcn								AuxFcn								Prioritor Disable									
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10
120	25																										

1317 - Gessner @ Hempstead [ITS 340] (1)

Plan Table 2 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord				X				X												
Hold				X				X												

Plan Table 2 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

Plan Table 2 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	15	25	15	25	15	25	10	25	0	0	0	0	0	0	0
CordNom	18	40	17	45	18	40	17	45	0	0	0	0	0	0	0
CordMax	30	50	30	50	30	50	20	50	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Offsets

Offset	1	2	3	4	5	6	7	8	9	10	11
Barrier	b	None	None	None	None	None	None	None	None	None	None
Value	60	0	0	0	0	0	0	0	0	0	0

Plan Table 2 Offsets

Offset	12	13	14	15	16	17	18	19	20
Barrier	None	None	None	None	None	None	None	None	None
Value	0	0	0	0	0	0	0	0	0

1317 - Gessner @ Hempstead [ITS 340] (1)

Plan Table 3 Params

Plan Mode	Max Mode	Splt/Ofs	Phase	Sequence	Overlap	Prioritor	Config
coord	max2	seconds	1: phase/timing	3: Lag 1 & 3	1: Overlap	1:	1: configuration table

Plan Table 3 Params

Cycle Length	Permissive	SpcFcn								AuxFcn								Prioritor Disable									
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10
120	25																										

Plan Table 3 Flags

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Coord				X				X												
Hold				X				X												

Plan Table 3 Flags

Phase	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Coord																				
Hold																				

Plan Table 3 Splits

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CordMin	15	25	15	25	15	25	10	30	0	0	0	0	0	0	0
CordNom	20	37	23	40	20	37	15	48	0	0	0	0	0	0	0
CordMax	30	50	30	50	30	50	20	60	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CordMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Plan Table 3 Splits

Phase	31	32	33	34	35	36	37	38	39	40
CordMin	0	0	0	0	0	0	0	0	0	0
CordNom	0	0	0	0	0	0	0	0	0	0
CordMax	0	0	0	0	0	0	0	0	0	0
PriMin	0	0	0	0	0	0	0	0	0	0
PriMax	0	0	0	0	0	0	0	0	0	0

Parameters External Plan Params

Plan	Enable	PlnSel								CtrMode	Plan	Description
		Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8			
246										ExtPlan	0	
247										ExtPlan	0	
248										ExtPlan	0	
249										ExtPlan	0	
250										ExtPlan	0	

Prioritor Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1		trf_ctrl	02/10/05 13:54:01	unknown	04/18/09 02:13:41

Prioritor Table 1 General

Prioritor	1	2	3	4	5	6	7	8	9	10
Enable		X	X	X	X					
Service Phase	None	6	2	8	4	None	None	None	None	None
Override Next										
Lockout Same	0	150	150	150	150	0	0	0	0	0
Lockout Diff	0	0	0	0	0	0	0	0	0	0

Active Config Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	configuration table	Steve	01/17/00 11:32:23	guest	12/05/2004 22:35:11

Active Config Table 1 Params

Phase	1: rings/id's
Overlap	1: Table 01
Preempt	1: preempts
Cabinet	1: input settings/output settings
Detector	1: detectors
Coordination	1: Coordination
Peer	1:

Phase Config Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	rings/id's	Steve	01/18/00 10:59:17	jclark	04/28/11 10:21:37

Phase Config Table 1 Phase ID

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Direction	wbl	ebt	nbl	sbt	ebl	wbt	sbl	nbt	nbr	nbr	nbr	nbr	nbr	nbr	nbr

Phase Config Table 1 Phase ID

Phase	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Direction	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr	nbr

1317 - Gessner @ Hempstead [ITS 340] (1)

Phase Config Table 1 Ring

Ring	Ring
1	1,2,a,3,4,b
2	5,6,a,7,8,b
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Detector Table Info

Table	Description	Created By	Created On	Modified By	Modified On
1	detectors	Steve	01/17/00 11:32:41	unknown	04/27/16 09:22:24
2	Default NEMA	GTS	09/08/04 20:13:18	taricod	10/13/06 12:00:49
3	Default ITS	GTS	09/08/04 20:13:18	taricod	10/13/06 12:01:38

Detector Table 1 Vehicle Flags

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Enable	X	X	X	X	X	X	X	X															
Call	X	X	X	X	X	X	X	X															
Extend	X	X	X	X	X	X	X	X															
AddInit																							
Term																							
Type3																							
RedLok																							
YelLok																							

Controller Database Timing Sheet

Station: 1500 - US-290 @ Gessner (Standard-5/4/2020 4:42:01 PM)

Type: NTCIP 80.x Linux Ethernet **Firmware:**

Created By: Sonya Myles **Modified By:** **Reviewed By:**

Controller Phase Times(1.1.1)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Min Grn	0	9	0	9	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Ext	0	2.5	0	2.5	0	2.5	0	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 1	0	40	0	45	0	30	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Clr	3.5	3.9	3.5	4.7	3.5	3.9	3.5	4.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	0	2	0	2	0	2	0	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clr	0	16	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time To	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce ReduceBy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DyMaxLim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Controller Phase Options(1.1.2)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Enable P	.	X	.	X	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Max Recall	.	X	.	X	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Soft Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lock Calls	.	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Dual Entry	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Simul Gap	.	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Guarantd Passage	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Condit'l Service	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Non-Actuated 1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Non-Actuated 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Added Init Calc	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hold to Max	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Controller Phase Options+ (1.1.3)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Reservice	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PedClr Thru Yel	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Skip Red-NoCall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Max II	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Max Inhibit	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Delay	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RedRest On Gap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grn/Ped Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Omit Yel/Yel P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Out/Ovlp P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Yel/Nxt P	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Unit Parms(1.2.1)	
	Value
TestMods	0
ADA Button Time	0
Metric	.
Red Revert	3
Auto Ped Clear	X
Display Time	10
AudioPedTime	0
Tone Disable	.
CNA FreeTime	0
Phase Mode	USER
Diamond Mode	4PH
IO Mode	USER
Max Cycle Tm	0
CycFailActn	ALARM
Free Ring Sequence	1
LPAlt Source	3-6
Clearance Decide	.
Security Delay	0
InvrtLocaFlsh	.
InetdRestart	0

Ring Sequences (1.2.4)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
1	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																																
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pattern+ (2.3)																																									
	YI	R1	R2	R3	R4	R5	R6	R7	R8	O 1	O 2	O 3	O 4	O 5	O 6	O 7	O 8	O 9	O 10	O 11	O 12	O 13	O 14	O 15	O 16	O 17	O 18	O 19	O 20	O 21	O 22	O 23	O 24	O 25	O 26	O 27	O 28	O 29	O 30	O 31	O 32
42	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
43	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
44	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
45	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
46	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
47	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
48	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Patterns(2.4)				
	Cycle	Offset	Split	Seqnc
TABLE - 1				
1	90	49	1	1
2	120	79	2	1
3	120	79	3	1
4	120	79	4	1
5	0	0	5	1
6	0	0	6	1
7	0	0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
11	0	0	11	1
12	0	0	12	1
13	0	0	13	1
14	0	0	14	1
15	0	0	15	1
16	0	0	16	1
17	0	0	17	1
18	0	0	18	1
19	0	0	19	1
20	0	0	20	1
21	0	0	21	1
22	0	0	22	1
23	0	0	23	1
24	0	0	24	1
25	0	0	25	1

Preempt LP(3.4.X)	
	Value
NoSkip	.
QJump	.
Min	0
Max	0
Lock	0
AltTable	0
HoldDwell	.
Priority P1	0
Priority P2	0
Priority P3	0
Priority P4	0
Headway	0
GrpLock	.
FreeMod	.

Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
TABLE - 1																																																				
1	.	X	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
86	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Day Plan Link(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TABLE - 1																								
Link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Day Plan(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TABLE - 1																
Hour	0	6	9	15	19	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	1	2	4	3	1	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																
Hour	0	9	21	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 3																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 4																

Controller Database Timing Sheet

Station: 1988 - Sam Houston @ Little York (Standard-4/5/2019 2:33:27 PM)

Type: NTCIP 80.x OS9 Ethernet **Firmware:**

Created By: Sonya Myles **Modified By:** **Reviewed By:**

Controller Phase Times(1.1.1)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Min Grn	3	7	2	7	3	7	2	7	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Ext	2	4	2	4	2	4	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 1	20	40	0	30	30	30	0	30	0	0	15	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 2	55	55	0	55	55	55	0	55	0	0	35	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Clr	4	4	4	4	4	4	4	4	3.5	3.5	4	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	2	2	2	2	2	2	1.5	1.5	2	1.5	1.5	1.5	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clr	0	14	0	28	0	14	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time To	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce ReduceBy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DyMaxLim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Controller Phase Options(1.1.2)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Enable P	X	X	.	X	X	X	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Min Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Max Recall	X	X	.	X	X	X	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	X	.	X	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Lock Calls	.	.	.	.	.	.	.	.	X	X	.	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Dual Entry	.	X	.	X	.	X	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enable Simul Gap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Guarantd Passage	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Condit'l Service	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Non-Actuated 1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Non-Actuated 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Added Init Calc	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hold to Max	.	X	.	X	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Controller Phase Options+ (1.1.3)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Reservice	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PedClr Thru Yel	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Ped Delay	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
RedRest On Gap	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Grn/Ped Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Omit Yel/Yel P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Out/Ovlp P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Yel/Nxt P	0	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Unit Parms(1.2.1)	
	Value
Red Revert	3
Auto Ped Clear	X
Display Time	10
AudioPedTime	0
Tone Disable	.
CNA FreeTime	0
Phase Mode	USER
Diamond Mode	4PH
IO Mode	USER
Max Cycle Tm	0
CycFailActn	ALARM
Free Ring Sequence	6
LPAltSrc	3-6
ClrncDecide	.
SecurityDelay	0
InvrtLocaFlsh	.
InetdRestart	0

Ring Sequences (1.2.4)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
1	2	1	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	8	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																																
1	2	1	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	8	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pattern+ (2.3)																																									
	YI	R1	R2	R3	R4	R5	R6	R7	R8	O 1	O 2	O 3	O 4	O 5	O 6	O 7	O 8	O 9	O 10	O 11	O 12	O 13	O 14	O 15	O 16	O 17	O 18	O 19	O 20	O 21	O 22	O 23	O 24	O 25	O 26	O 27	O 28	O 29	O 30	O 31	O 32
35	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
36	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
37	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
38	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
39	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
40	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
41	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
42	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
43	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
44	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
45	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
46	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
47	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
48	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Patterns(2.4)				
	Cycle	Offset	Split	Seqnc
TABLE - 1				
1	0	0	1	6
2	120	103	2	2
3	0	0	3	2
4	0	0	4	2
5	0	0	5	2
6	0	0	6	2
7	0	0	7	2
8	120	103	8	2
9	120	28	9	2
10	120	28	10	6
11	135	128	11	2
12	120	103	12	2
13	0	0	13	1
14	0	0	14	1
15	0	0	15	1
16	0	0	16	1
17	0	0	17	1
18	0	0	18	1

Preempt LP(3.4.X)	
	Value
Lock	0
AltTable	0
HoldDwell	.
Priority P1	0
Priority P2	0
Priority P3	0
Priority P4	0
Headway	0
GrpLock	.
FreeMod	.

Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
TABLE - 1																																																				
1	.	X	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Day Plan Link(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TABLE - 1																								
Link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Day Plan(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TABLE - 1																
Hour	0	6	9	11	15	20	0	0	0	0	0	0	0	0	0	0
Minute	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0
Action	10	2	2	10	11	10	0	0	0	0	0	0	0	0	0	0
TABLE - 2																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 3																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 4																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 5																

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

Tanner Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	3	7	3	7	3	7	3	7	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	1.5	0.0	1.5	0.0	1.5	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	15	0	15	0	15	0	15	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	2.0	4.0	2.0	2.0	2.0	4.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	10	10	10	10	10	10	10	10	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	5	5	5	5	5	4	5	5	0	0	0	0	0	0	0	0
Min Gap	1.0	3.0	2.0	1.5	1.5	3.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	15	75	25	30	15	65	20	30	0	0	0	0	0	0	0	0
Max2	25	55	45	55	25	55	25	55	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Ped Clear	0	18	0	24	0	18	0	24	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 1 - ""Continued

Phase Recall (MM) 2-1-6

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

Tanner Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Controller Options

Controller Options (MM) 2-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								
Dual Entry		X		X		X		X								
Simultaneous Gap		X				X										
Backup Protect																
Backup Call																
Passage After Init																
Guaranteed Passage																
Cond Service From																
Cond Service To																
Non-Actuated I																
Non-Actuated II																
Pre-Timed																
Exclusive Ped																
Rest In Walk																
Ped Re-Service																
Flashing Walk																
Ped Clear Thru Yellow																
Ped Clear Thru Red																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Omit																

Unit Red Revert:	4.0
Ped Clear Protect:	On
MUTCD 3 Seconds Don't Walk:	No
Enable Pre-Timed Mode:	No
Free Input Disables Pre-Timed:	No

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

Tanner Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Configuration Controller Sequence

Controller Sequence (MM) 2-7-1

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B											
Sequence 1																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

Tanner Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Time Base Event Plan
Event Plan (MM) 5-2

Event Plan - 2 - Event Type: "Coord"

Cycle Length: 120 Offset Value: 54s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	18	56	20	26	18	56	20	26	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall																
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X	X	X	X	X	X

Dwell/Add Time: 0
Timing Plan: 1
Sequence: 2
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 10
Ring Group Offset Disp: 10

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Split Sum	120s	120s	0s	0s

Veh Perm 1: 0
Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
SCP Detector Plan: 0
Override Sys: No
Det Log:

Veh Detector Plan: 1
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								

Aux Func (1-3)			

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 3 - Event Type: "Coord"

Cycle Length: 135 Offset Value: 29s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E-T	N	N	N	N	N	N	N	N
Split	18	55	36	26	18	55	18	44	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall																
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X	X	X	X	X	X

Dwell/Add Time: 0
Timing Plan: 1
Sequence: 3
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 10
Ring Group Offset Disp: 10

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Split Sum	135s	135s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 0
SCP Detector Plan: 0
Override Sys: No
Det Log:
Veh Detector Plan: 1
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 6 - Event Type: "Free"

Timing Plan: 1
Sequence: 1
SCP Strategy Plan: 0
Override Sys: No
Det Log: None
Veh Detector Plan: 1
Veh Det Diag Plan: 0
Ped Det Diag Plan: 0
Red Rest: No

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ped Recall																
Walk 2																
Veh Ext 2																
Veh Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit																
Spec Func (1-8)																
Aux Func (1-3)																

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

Tanner Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Time Base Day Plan/Schedule
Day Plan (MM) 5-3

Day Plan #1 - "1"

Event	Event Plan	Start Time
1	100	00:00
2	100	08:00
3	100	11:30
4	100	20:30
5	100	22:00

Day Plan #2 - "2"

Event	Event Plan	Start Time
1	100	00:00
2	100	05:45
3	100	06:30
4	100	09:00
5	100	11:30
6	3	14:30
7	3	16:00
8	3	19:00
9	100	20:30
10	100	22:00

Day Plan #3 - "3"

Event	Event Plan	Start Time
1	100	00:00
2	100	08:00
3	100	10:45
4	100	20:30
5	100	22:00

Schedule (MM) 5-4

Schedule Number - 1

Day Plan No.: 1

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
	X						

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 2

Day Plan No.: 2

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
		X	X	X	X	X	

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Schedule Number - 3

Day Plan No.: 3

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	X	X	X	X	X	X	X	X	X	X	X	X

Day (DOW)	SUN	MON	TUE	WED	THU	FRI	SAT
							X

Day (DOM)	1	2	3	4	5	6	7	8	9	10	11
	X	X	X	X	X	X	X	X	X	X	X
	12	13	14	15	16	17	18	19	20	21	22
	X	X	X	X	X	X	X	X	X	X	X
	23	24	25	26	27	28	29	30	31		
	X	X	X	X	X	X	X	X	X		

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

W. Little York Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Controller Timing Plan (MM) 2-1

Plan 1 - ""

Phase	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Direction	**W-L**	**E-TR**	**N-L**	**S-TR**	**E-L**	**W-TR**	**S-L**	**N-TR**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
2-1-1	Minimum Green															
Delay Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	3	7	3	8	3	7	3	7	0	0	0	0	0	0	0	0
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Variable Initial															
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	1.5	0.0	1.0	0.0	1.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	15	0	15	0	15	0	15	0	0	0	0	0	0	0	0
2-1-2	Vehicle Passage															
Vehicle Ext	2.0	4.0	2.0	4.0	2.0	4.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Volume Occupancy															
Time B4	0	10	0	10	0	10	0	10	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Min Gap	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-3	Max Green Data															
Max1	20	45	20	25	20	45	20	25	0	0	0	0	0	0	0	0
Max2	25	70	25	35	25	70	25	35	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Dynamic Max															
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-1-4	Pedestrian															
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	5	0	5	0	5	0	5	0	0	0	0	0	0	0	0
Ped Clear	0	18	0	24	0	18	0	24	0	0	0	0	0	0	0	0
	Alternate															
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pedestrian Carry Over															
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max Extension															
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-1-5	Clearance															
Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Red Clear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	Max Extension															
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Plan 1 - ""Continued

Phase Recall (MM) 2-1-6

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

W. Little York Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Controller Options

Controller Options (MM) 2-6

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phases In Use	X	X	X	X	X	X	X	X								
Dual Entry		X		X		X		X								
Simultaneous Gap		X		X		X		X								
Lock Phase Next																
Passage After Init																
Guaranteed Passage																
Cond Service From																
Cond Service To																
LRT/RBT Phase																
Pre Green Clear																
2 Section Signal																
Non-Actuated I																
Non-Actuated II																
Pre-Timed																
Exclusive Ped																
Rest In Walk																
Ped Re-Service																
Flashing Walk																
Ped Clear Thru Yellow																
Ped Clear Thru Red																
Flash Green	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Omit																

Unit Red Revert:	4.0
Ped Clear Protect:	On
MUTCD 3 Seconds Don't Walk:	No
Enable Pre-Timed Mode:	No
Free Input Disables Pre-Timed:	No

Harris County, TX

ECONOLITE

MOVING TRAFFIC FORWARD

W. Little York Rd @ Brittmoore Rd - Fiber - Econolite Type - Eos

Configuration Controller Sequence

Controller Sequence (MM) 2-7-1

Phase Ring Sequence.....(Note: Sequences identical to the prior one are not printed)

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	B		B		B											
Sequence 1																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 2																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 3																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 4																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 5																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 6																
Ring 1	1	2	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 7																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 8																
Ring 1	1	2	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 9																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 10																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 11																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 12																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	5	6	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 13																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 14																
Ring 1	2	1	3	4	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 15																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	7	8	.	.	.	.	.	.	.	.	.	.	.	.
Sequence 16																
Ring 1	2	1	4	3	.	.	.	.	.	.	.	.	.	.	.	.
Ring 2	6	5	8	7	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 2 - Event Type: "Coord"

Cycle Length: 120 Offset Value: 46s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-TR	N-L	S-TR	E-L	W-TR	S-L	N-TR	N	N	N	N	N	N	N	N
Split	18	58	12	32	18	58	18	26	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall																
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X	X	X	X	X	X

Dwell/Add Time: 0
Timing Plan: 1
Sequence: 6
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 10
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Split Sum	120s	120s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 1 Veh Detector Plan: 1
SCP Detector Plan: 0 Veh Det Diag Plan: 0
Override Sys: No Ped Det Diag Plan: 0
Backup Prevent Plan: 0 Det Log: None

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								
Spec Func (1-8)								
Aux Func (1-3)								

Statement	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
LP 1-25	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 26-50	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 51-75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LP 76-100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Event Plan - 3 - Event Type: "Coord"

Cycle Length: 120 Offset Value: 46s Actuated Coord: Yes Splits In: Seconds Offsets In: Seconds

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Description	W-L	E-TR	N-L	S-TR	E-L	W-TR	S-L	N-TR	N	N	N	N	N	N	N	N
Split	18	56	18	28	18	56	18	28	0	0	0	0	0	0	0	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coord Phase		X				X										
Fixed Force Off																
Adaptive Split																
Veh Ext 2																
Vehicle Recall																
Walk 2																
Pedestrian Recall																
Max Recall																
Max 2																
Max 3																
CS Inhibit																
Omit Phase									X	X	X	X	X	X	X	X

Dwell/Add Time: 0
Timing Plan: 1
Sequence: 7
Actuated Walk Rest: No
Phase Reservice: No
Max Select: MAXINH
Max Transition: 10
Ring Group Offset Disp: 0

Ring	1	2	3	4
Ring Split Ext	0	0	0	0
Split Sum	120s	120s	0s	0s

Veh Perm 1: 0 Veh Perm 2 Disp: 0
Veh Perm 2: 0

SCP Strategy Plan: 1 Veh Detector Plan: 1
SCP Detector Plan: 0 Veh Det Diag Plan: 0
Override Sys: No Ped Det Diag Plan: 0

Outputs	1	2	3	4	5	6	7	8
Coord Patt Spec Func Outputs								

Controller Database Timing Sheet

Station: 2735 - Gessner @ Tanner (Standard-10/3/2019 5:46:07 PM)

Type: NTCIP 80.x Linux Ethernet **Firmware:** 80.04c

Created By: Sonya Myles **Modified By:** **Reviewed By:**

Controller Phase Times(1.1.1)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Min Grn	6	7	6	7	6	7	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Ext	2	3	2	3	2	3	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 1	30	40	30	45	30	40	30	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 2	30	50	30	60	30	50	30	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Clr	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk	0	4	0	4	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clr	0	17	0	17	0	17	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time To	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce ReduceBy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DyMaxLim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Unit Parms(1.2.1)	
	Value
Metric	.
Red Revert	3
Auto Ped Clear	X
Display Time	10
AudioPedTime	0
Tone Disable	.
CNA FreeTime	0
Phase Mode	STD8
Diamond Mode	4PH
IO Mode	USER
Max Cycle Tm	0
CycFailActn	ALARM
Free Ring Sequence	9
LPAlt Source	3-6
Clearance Decide	.
Security Delay	0
InvrtLocaFlsh	.
InetdRestart	0

Ring Sequences (1.2.4)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	5	6	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																																
1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	6	5	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pattern+ (2.3)																																								
	YI	R1	R2	R3	R4	R5	R6	R7	R8	O 1	O 2	O 3	O 4	O 5	O 6	O 7	O 8	O 9	O 10	O 11	O 12	O 13	O 14	O 15	O 16	O 17	O 18	O 19	O 20	O 21	O 22	O 23	O 24	O 25	O 26	O 27	O 28	O 29	O 30	O 31	O 32
35	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
36	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
37	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
38	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
39	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
40	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
41	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
42	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
43	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
44	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
45	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
46	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
47	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
48	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Patterns(2.4)				
	Cycle	Offset	Split	Seqnc
TABLE - 1				
1	90	49	1	9
2	120	54	2	6
3	120	54	3	6
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7	0	0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
11	0	0	11	1
12	0	0	12	1
13	0	0	13	1
14	0	0	14	1
15	0	0	15	1
16	0	0	16	1
17	0	0	17	1
18	0	0	18	1

Splits Expanded(2.7.X.1)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Time	20	32	23	45	26	26	23	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	MXP	NON	NON	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 3																																
Time	20	32	23	45	20	32	23	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	MAX	NON	NON	MXP	NON	MAX	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 4																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 5																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 6																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 7																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 8																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 9																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Preempt LP(3.4.X)	
	Value
Priority P4	0
Headway	0
GrpLock	.
FreeMod	.
TABLE -4	
Enable	.
CoorPlusPre	.
LockMode	MAX
NoSkip	.
QJump	.
Min	0
Max	0
Lock	0
AltTable	0
HoldDwell	.
Priority P1	0
Priority P2	0
Priority P3	0
Priority P4	0
Headway	0
GrpLock	.
FreeMod	.

Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
TABLE - 1																																																					
1	.	X	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
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Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
78	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Day Plan Link(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TABLE - 1																								
Link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Day Plan(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TABLE - 1																
Hour	0	6	9	15	19	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	1	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																

Controller Database Timing Sheet

Station: 2946 - Sam Houston @ Tanner (Standard-2/1/2019 9:39:56 AM)

Type: NTCIP 80.x OS9 Ethernet **Firmware:** 80.04c

Created By: Sonya Myles **Modified By:** **Reviewed By:**

Controller Phase Times(1.1.1)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Min Grn	0	10	0	11	0	10	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Ext	0	2.5	0	2.5	0	2.5	0	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 1	0	18	0	15	0	20	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yel Clr	3.5	4	3.5	4	3.5	4	3.5	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	0	2	0	2	0	2	0	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk	0	4	0	1	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clr	0	7	0	2	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Add Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Init	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Cars B4 Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Time To	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce ReduceBy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gap Reduce Min Gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DyMaxLim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Controller Phase Options(1.1.2)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Enable P	.	X	.	X	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Max Recall	.	X	.	X	.	X	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ped Recall	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Lock Calls	.	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Auto Flash Entry	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Enable Simul Gap	.	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Guarantd Passage	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Non-Actuated 2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Added Init Calc	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hold to Max	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Controller Phase Options+ (1.1.3)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
Reservice	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PedClr Thru Yel	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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Grn/Ped Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Omit Yel/Yel P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Out/Ovlp P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Yel/Nxt P	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Unit Parms(1.2.1)	
	Value
ADA Button Time	0
Metric	.
Red Revert	3
Auto Ped Clear	X
Display Time	10
AudioPedTime	0
Tone Disable	.
CNA FreeTime	0
Phase Mode	USER
Diamond Mode	4PH
IO Mode	USER
Max Cycle Tm	0
CycFailActn	ALARM
Free Ring Sequence	1
LPAltSrc	3-6
ClrncDecide	.
SecurityDelay	0
InvrtLocaFlsh	.
InetdRestart	0

Ring Sequences (1.2.4)																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
TABLE - 1																																
1	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																																
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Pattern+ (2.3)																																								
	YI	R1	R2	R3	R4	R5	R6	R7	R8	O 1	O 2	O 3	O 4	O 5	O 6	O 7	O 8	O 9	O 10	O 11	O 12	O 13	O 14	O 15	O 16	O 17	O 18	O 19	O 20	O 21	O 22	O 23	O 24	O 25	O 26	O 27	O 28	O 29	O 30	O 31	O 32
35	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
36	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
37	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
38	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
39	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
40	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
41	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
42	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
43	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
44	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
45	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
46	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
47	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
48	.	0	0	0	0	0	0	0	0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Patterns(2.4)				
	Cycle	Offset	Split	Seqnc
TABLE - 1				
1	90	74	1	1
2	120	54	2	1
3	100	4	3	1
4	0	0	4	1
5	0	0	5	1
6	0	0	6	1
7	0	0	7	1
8	0	0	8	1
9	0	0	9	1
10	0	0	10	1
11	0	0	11	1
12	0	0	12	1
13	0	0	13	1
14	0	0	14	1
15	0	0	15	1
16	0	0	16	1
17	0	0	17	1
18	0	0	18	1

Splits Expanded(2.7.X.1)																																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Time	0	30	0	35	0	25	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	MXP	NON	MXP	NON	MAX	NON	MAX	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 3																																
Time	0	23	0	17	0	25	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	MAX	NON	MAX	NON	MAX	NON	MXP	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 4																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 5																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 6																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 7																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 8																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
TABLE - 9																																
Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coord Phase	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Preempt LP(3.4.X)	
	Value
Lock	0
AltTable	0
HoldDwell	.
Priority P1	0
Priority P2	0
Priority P3	0
Priority P4	0
Headway	0
GrpLock	.
FreeMod	.

Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
TABLE - 1																																																				
1	.	X	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Adv Schedule(4.3)

	SUN	MON	TUE	WED	THU	FRI	SAT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
90	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
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Day Plan Link(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
TABLE - 1																								
Link	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Day Plan(4.4)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
TABLE - 1																
Hour	0	6	9	15	19	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	1	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0
TABLE - 2																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 3																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 4																
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TABLE - 5																

Appendix G
Landfill Permit Application Documents

AIRSPACE CALCULATIONS

Date: 07/23/2020
Made By: EWT
Checked by: JBF
Reviewed by: CGD

1.0 OBJECTIVE

To determine the airspace gained from the proposed expansion of the Hawthorn Park Landfill.

2.0 GIVEN

- Existing ground data terrain model (DTM) from 2019 aerial survey
- Design/built waste or cover grades for existing landfills (under Permit No. MSW-2185 and MSW-1135)
- Design top of waste (TWST) grades for the expansion (PAA MSW-2185A)

3.0 METHOD

Use AutoCAD Civil 3D, a civil engineering software, to compare DTM's using volume surface comparison. The base surface DTM, bottom of waste (BWST) is a composite of the site's existing ground topography, the top of waste or cover for the existing landfill areas, and the proposed expansion area's protective cover design grades. The comparison surface DTM is the final waste design grades for Hawthorn Park Landfill expansion. The Civil3D software calculates the volume, in cubic yards, between the two DTM's and thus estimates the resulting airspace gained from the expansion.

4.0 CALCULATIONS

4.1 Permitted Area Airspace

Permitted airspace remaining, comparing DTM to permitted waste grades (yd^3): V = 71,724 yd^3

4.2 Expansion Area Airspace

4.2.1 Volume Surface Calculations

From AutoCAD Civil 3D, comparing TWST to BWST: V = 16,034,766 yd^3

5.0 CONCLUSIONS

5.1 Total Airspace Resulting from Proposed Expansion

The total remaining airspace after the expansion is the permitted area airspace and expansion area airspace.

Total airspace remaining after expansion: 16,106,490 yd^3

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Professional Engineering Firm
Registration Number F-2578

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SITE LIFE CALCULATIONS

Date: 07/20/2020
Made By: EWT
Checked by: JBF
Reviewed by: CGD

1.0 OBJECTIVE

Compute the anticipated site life for the proposed Hawthorn Park Landfill expansion based on the currently-permitted remaining airspace and additional airspace resulting from the expansion.

2.0 GIVEN

(1)	Initial waste (Year 1) receipts estimated at:	150,000	tons per year
(2)	Year 2 of waste receipts estimated at:	200,000	tons per year
(3)	Annual growth rate in waste receipts, after Year 2, assumed at:	1.2%	per year
(4)	Waste placement assumes an in-place density of:	1500	lb/yd^3
(5)	Remaining in-place disposal capacity (waste and weekly cover):	16,106,490	yd^3

3.0 CALCULATIONS

Incoming waste after year two:

$F = P (1 + GR)$, where:

F = Yearly gate waste receipts (tons) - subsequent year
P = Yearly gate waste receipts (tons) - previous year
GR = Growth rate

$A = F(2000)/1500$, where:

A = Yearly Airspace Consumed (yd^3)
F = Yearly gate waste receipts (tons)
2000 / 1500 = Conversion from tons (2000 lbs/1 ton) to yd^3 (1500 lbs / 1 yd^3)

Calculations provided in the table below.

4.0 CONCLUSION

Following approval of the expansion, the remaining site life of the Hawthorn Park Landfill will be approximately 46 years.

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Year	Yearly Gate Waste Receipts (F)	Yearly Airspace Consumed (A)	Cumulative Airspace Consumed	Remaining Disposal Airspace Volume
	(tons)	(yd^3)	(yd^3)	(yd^3)
1	150,000	200,000	200,000	15,906,490
2	200,000	266,667	466,667	15,639,823
3	202,400	269,867	736,533	15,369,957
4	204,829	273,105	1,009,638	15,096,852
5	207,287	276,382	1,286,021	14,820,469
6	209,774	279,699	1,565,720	14,540,770
7	212,291	283,055	1,848,775	14,257,715
8	214,839	286,452	2,135,227	13,971,263
9	217,417	289,889	2,425,116	13,681,374
10	220,026	293,368	2,718,484	13,388,006
11	222,666	296,888	3,015,373	13,091,117
12	225,338	300,451	3,315,824	12,790,666
13	228,042	304,057	3,619,881	12,486,609
14	230,779	307,705	3,927,586	12,178,904
15	233,548	311,398	4,238,983	11,867,507
16	236,351	315,134	4,554,118	11,552,372
17	239,187	318,916	4,873,034	11,233,456
18	242,057	322,743	5,195,777	10,910,713
19	244,962	326,616	5,522,393	10,584,097
20	247,902	330,535	5,852,928	10,253,562
21	250,876	334,502	6,187,430	9,919,060
22	253,887	338,516	6,525,946	9,580,544
23	256,934	342,578	6,868,524	9,237,966
24	260,017	346,689	7,215,213	8,891,277
25	263,137	350,849	7,566,062	8,540,428
26	266,295	355,059	7,921,122	8,185,368
27	269,490	359,320	8,280,442	7,826,048
28	272,724	363,632	8,644,074	7,462,416
29	275,997	367,996	9,012,069	7,094,421
30	279,309	372,411	9,384,481	6,722,009
31	282,660	376,880	9,761,361	6,345,129
32	286,052	381,403	10,142,764	5,963,726
33	289,485	385,980	10,528,744	5,577,746
34	292,959	390,612	10,919,356	5,187,134
35	296,474	395,299	11,314,655	4,791,835
36	300,032	400,043	11,714,697	4,391,793
37	303,632	404,843	12,119,540	3,986,950
38	307,276	409,701	12,529,241	3,577,249
39	310,963	414,618	12,943,859	3,162,631
40	314,695	419,593	13,363,452	2,743,038
41	318,471	424,628	13,788,080	2,318,410
42	322,293	429,724	14,217,804	1,888,686
43	326,160	434,880	14,652,684	1,453,806
44	330,074	440,099	15,092,783	1,013,707
45	334,035	445,380	15,538,163	568,327
46	338,043	450,725	15,988,888	117,602
46.3	342,100	117,602	16,106,490	0

https://golderassociates.sharepoint.com/sites/35538g/Hawthorn Park 2185A/1894269/5. Working Documents/Part III/Att 3/Airspace and Site Life/III-3A-2 Site Life Calculations
Submitted: August 2020