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F: 914.347.7266
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October 2, 2018

Town of Bedford Planning Board
321 Bedford Road
Bedford Hills, NY 10507

Re: Fire Headquarters
Bedford Village Fire District
NYS Route 22
Town of Bedford, Westchester County, NY
MC Project No. 18001706A

Dear Commissioners:

As requested a traffic evaluation has been conducted by Maser Consulting, P.A. to evaluate the traffic impacts of relocating the existing Bedford Fire Department currently located at 34 Village Green to property located approximately 0.4 miles south along the westside of NYS Route 22 just south of the signalized intersection with Greenwich Road. As shown on Figure No. 1, access to the site is proposed via an entry only driveway to Southbrook Road (which would primarily be used for incoming responders arriving from the north) and a full movement driveway to NYS Route 22 opposite Lincoln Avenue which would allow access to/from the site for emergency vehicles. In addition, as part of this evaluation, a warrant analysis was conducted for the installation of an emergency-vehicle traffic control signal at the proposed NYS Route 22 driveway and emergency pre-emption system at adjacent intersections. The following sections provide a description of the task undertaken in completing our evaluation.

1. Year 2018 Existing Traffic Volumes

In order to establish existing traffic conditions in the vicinity of the Site, turning movement traffic counts were conducted on Tuesday, May 1, 2018 between the hours of 7:00 AM and 9:00 AM to determine the Weekday Peak AM Highway Hour and between the hours of 2:00 PM and 7:00 PM to determine the Weekday Peak PM Highway Hour and compared to historical traffic counts ⁽¹⁾ at the following intersections.

- NYS Route 22 and NYS Route 172 (signalized intersection)
- NYS Route 22 and Greenwich Road (signalized intersection)
- NYS Route 22 and Southbrook Road (unsignalized intersection)
- NYS Route 22 and Lincoln Avenue ⁽¹⁾ (unsignalized intersection)



The resulting Year 2018 Existing Traffic Volumes are shown on Figures No. 2 and 3 for the Weekday Peak AM Highway Hour (7:30 AM – 8:30 AM) and Weekday Peak PM Highway Hour (5:00 PM – 6:00 PM), respectively. A copy of the traffic count data is contained in Appendix “E” of this Study.

2. Year 2020 No-Build Traffic Volumes

For the purpose of analysis, a Design Year of 2020 has been utilized in completing the traffic analysis. In order to account for normal background traffic growth, the Year 2018 Existing Traffic Volumes were increased by a total background growth factor of 1.0%. [NYSDOT historical data and traffic growth projections has indicated that overall growth in traffic for the last several years has shown little to no growth]. The resulting Year 2020 No-Build Traffic Volumes are shown on Figures No. 4 and 5 for each of the Peak Hours, respectively

3. Site Generated Traffic Volumes

Based on information provided by the Bedford Fire Department the average number of responders per incident was 5 responders in 2016 and 7 responders in 2017. For analysis purpose we conservatively assigned 10 responders arriving (based on member location information provided by the Fire Department) and 3 emergency vehicles departing (for the critical exiting left turn movement) during an emergency response to the new site and roadway network. The resulting Site Generated Traffic Volumes are shown on Figure No. 6. [It should be noted that while the existing traffic associated with the existing Firehouse may be slightly diverted to its new location (approximately 0.4 miles to the south), this traffic isn't “new” traffic and already exists on the area roadway network].

4. Year 2020 Build Traffic Volumes w/ Relocated Fire Department

The above Site Generated Traffic Volumes were then added to the Year 2020 No-Build Traffic Volumes to obtain the Year 2020 Build Traffic Volumes with the Relocated Fire Department and are shown on Figures No. 7 and 8 for each of the Peak Hours, respectively.

5. Results of Analysis

In order to evaluate current and future traffic operating conditions at the Study Area Intersections, a SYNCHRO analysis (capacity analysis) was conducted. The following is a brief description of the analysis method utilized in this report:



Signalized Intersection Capacity Analysis

The capacity analysis for signalized intersections were performed in accordance with the procedures described in the 2010 Highway Capacity Manual, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

Unsignalized Intersection Capacity Analysis

The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the 2010 Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement (major street left turns and minor street movements) to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix C of this Study with the capacity analysis in Appendix D.

The results of the existing and future Levels of Service (Levels of Service, Delays, Volume-to-Capacity (V/C) Ratios) are summarized in Table No. 1 (Appendix B). As shown on this Table, similar Levels of Service and delays will be experienced at the Study Area Locations with relocation of the Fire Department. [It should be noted that during emergency response times, the pre-emption system will temporarily modify the operation of the intersections].

6. Emergency Pre-Emption Traffic Signal Warrant Analysis

In addition to the above analysis, a warrant analysis was conducted for the installation of an emergency-vehicle traffic control signal at the proposed NYS Route 22 driveway. Based on NYSDOT Criteria as outlined in the New York State Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways - 2009 Edition, "Emergency-vehicle traffic control signals should be used on two-lane highways only where, within a two-year period, 200 emergency calls occur during times when the rate of flow on the highway is at least":



1. 750 vehicle per hour; or
2. 525 vehicles per hour, if the 85th percentile highway speed is over 40 mph; or
3. 525 vehicles per hour, if the stopping sight distance for vehicles approaching on the major street is insufficient to permit reasonably safe entrance of emergency vehicles; or
4. 375 vehicles per hour, if the 85th percentile highway speed is over 40 mph and the stopping sight distance for vehicles approaching on the major street is insufficient to permit reasonably safe entrance of emergency vehicles.

Utilizing New York State Department of Transportation (NYSDOT) historical Annual Average Daily Traffic (AADT) volumes along NYS Route 22 in the vicinity of the site and emergency response records from the Bedford Fire Department for the 2-year period from January 1, 2016 to December 31, 2017, a warrant analysis identifying the average hourly traffic volume along NYS Route 22 and the number of emergency calls that occurred during each of those hours was developed. As summarized in Table No. 2 (Appendix F), the total number of calls observed during the 2-year period when traffic volumes exceeded 750 vehicle per hour (Criteria 1) equaled 874, which more than exceeds the threshold to satisfy the warrant of 200 calls. A copy of the NYSDOT AADT and Bedford Fire Department number of emergency calls are also contained in Appendix F.

Very truly yours,
MASER CONSULTING P.A.

A handwritten signature in blue ink, appearing to read 'John T. Collins', written over a horizontal line.

John T. Collins, Ph.D., P.E.
Executive Principal

A handwritten signature in blue ink, appearing to read 'Ronald P. Rieman', written over a horizontal line.

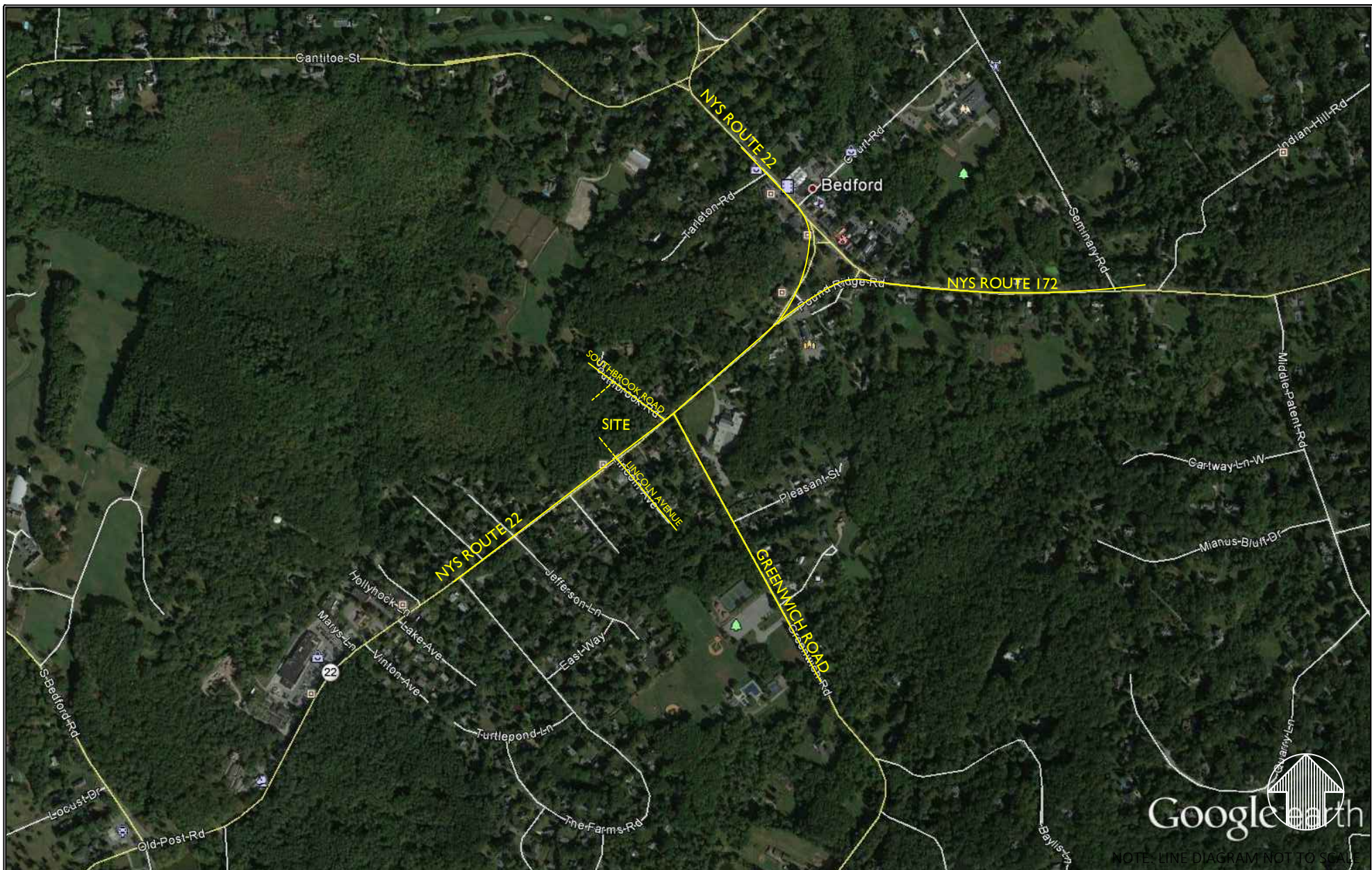
Ronald P. Rieman, Project Manager



***FIRE HEADQUARTERS
BEDFORD VILLAGE FIRE DISTRICT***

APPENDIX A

FIGURES



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PROJECT NUMBER		DRAWING NAME	
18001706A		180913_NT_FIGURES	
SHEET TITLE:			
SITE LOCATION			
SHEET NUMBER:			
FIGURE NO. 1			



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SHEET TITLE: 2018 EXISTING TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR			
SHEET NUMBER: FIGURE NO. 2			



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SHEET NUMBER: FIGURE NO. 4			



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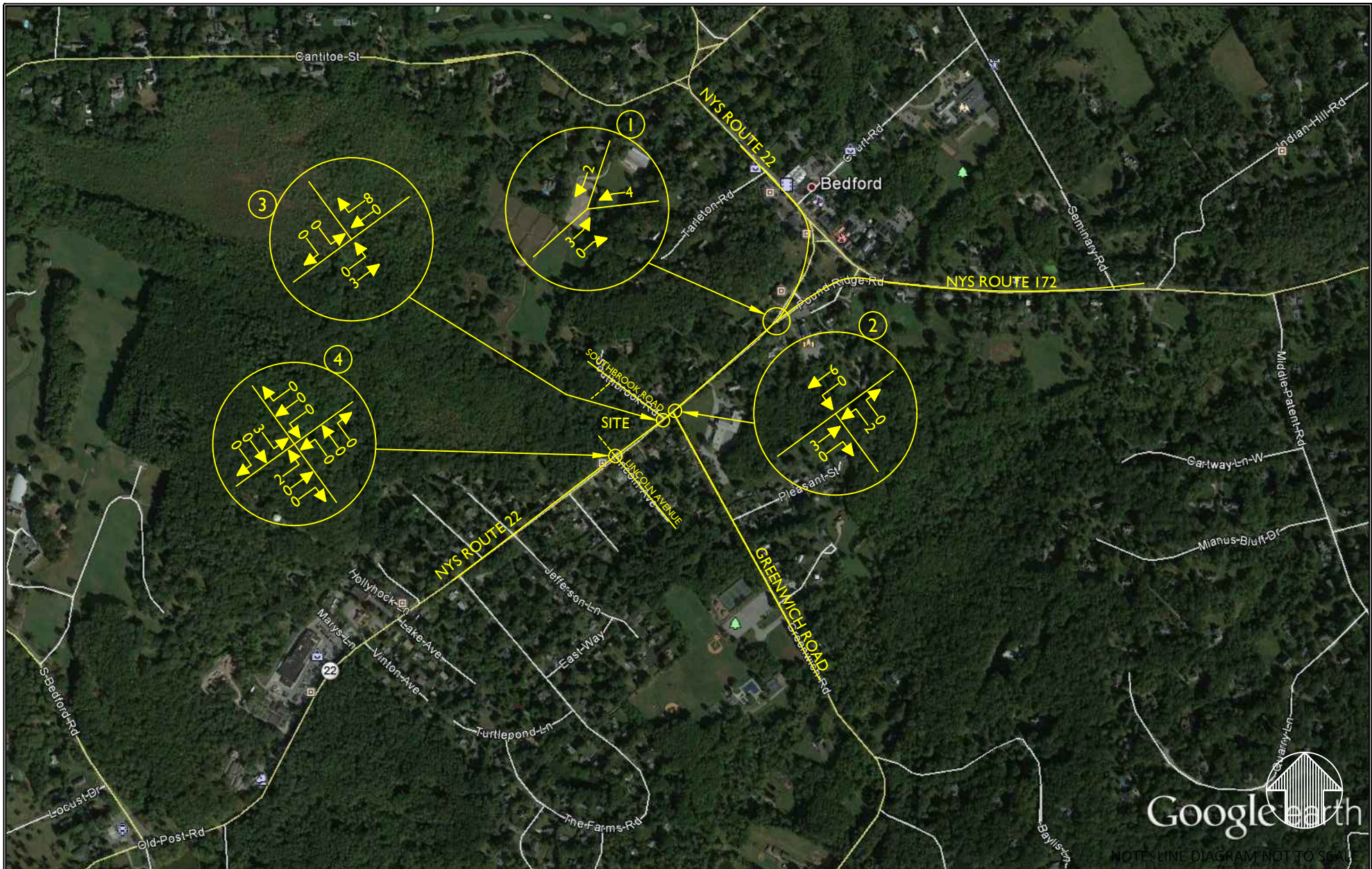
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SHEET TITLE: 2020 NO-BUILD TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR			
SHEET NUMBER: FIGURE NO. 5			



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SHEET TITLE: SITE GENERATED TRAFFIC VOLUMES			
SHEET NUMBER: FIGURE NO. 6			



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SHEET TITLE: 2020 BUILD TRAFFIC VOLUMES WEEKDAY PEAK AM HOUR			
SHEET NUMBER: FIGURE NO. 7			



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PROJECT NUMBER	DRAWING NAME		
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SHEET TITLE:			
2020 BUILD TRAFFIC VOLUMES WEEKDAY PEAK PM HOUR			
SHEET NUMBER:			
FIGURE NO. 8			



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APPENDIX B

LEVEL OF SERVICE SUMMARY TABLE

TABLE NO. 1

LEVEL OF SERVICE / QUEUE SUMMARY TABLE

	LOCATION	YEAR 2018 EXISTING CONDITIONS						YEAR 2020 NO-BUILD CONDITIONS						YEAR 2020 BUILD CONDITIONS					
		WEEKDAY PEAK AM HOUR			WEEKDAY PEAK PM HOUR			WEEKDAY PEAK AM HOUR			WEEKDAY PEAK PM HOUR			WEEKDAY PEAK AM HOUR			WEEKDAY PEAK PM HOUR		
		LOS	DELAY (seconds)	V/C RATIO	LOS	DELAY (seconds)	V/C RATIO	LOS	DELAY (seconds)	V/C RATIO	LOS	DELAY (seconds)	V/C RATIO	LOS	DELAY (seconds)	V/C RATIO	LOS	DELAY (seconds)	V/C RATIO
1	NYS ROUTE 22 / NYS ROUTE 172 SIGNALIZED NYS ROUTE 22 - NB APPROACH NYS ROUTE 22 - SB APPROACH NYS ROUTE 172 - WB APPROACH OVERALL INTERSECTION	C	21.2	0.81	C	24.7	0.89	C	21.3	0.82	C	25.4	0.90	C	21.5	0.82	C	25.9	0.90
		B	20.0	0.64	A	8.6	0.18	B	19.9	0.64	A	8.6	0.18	B	19.9	0.64	A	8.7	0.19
		C	28.1	0.78	D	42.0	0.78	C	28.9	0.79	D	42.8	0.79	C	29.6	0.79	D	43.1	0.79
		C	23.4	----	C	26.6	----	C	23.7	----	C	27.2	----	C	24.0	----	C	27.6	----
2	NYS ROUTE 22 / GREENWICH ROAD SIGNALIZED NYS ROUTE 22 - NB APPROACH - TR NYS ROUTE 22 - SB APPROACH - LT GREENWICH ROAD - WB APPROACH - LR OVERALL INTERSECTION	A	6.0	0.45	A	8.5	0.58	A	6.0	0.46	A	8.7	0.58	A	6.2	0.46	A	8.9	0.59
		E	68.0	1.08	A	9.0	0.55	E	75.5	1.10	A	9.5	0.57	E	79.6	1.11	A	9.9	0.58
		C	33.7	0.64	C	28.6	0.78	C	34.0	0.65	C	28.9	0.79	C	34.3	0.65	C	29.6	0.79
		D	44.3	----	B	12.5	----	D	48.7	----	B	12.8	----	D	51.1	----	B	13.1	----
3	NYS ROUTE 22 / SOUTHBROOK ROAD UNSIGNALIZED NYS ROUTE 22 - NB APPROACH - LT SOUTHBROOK ROAD - EB APPROACH - LR	A	9.4	0.001	A	8.4	0.001	A	9.4	0.001	A	8.4	0.001	A	9.5	0.001	A	8.5	0.001
		C	21.2	0.010	C	18.3	0.008	C	21.4	0.010	C	18.5	0.008	C	21.6	0.010	C	18.6	0.008
4	NYS ROUTE 22 / LINCOLN AVENUE UNSIGNALIZED NYS ROUTE 22 - SB APPROACH - LT LINCOLN AVENUE - WB APPROACH - LR	A	0.0	0.000	A	9.2	0.001	A	0.0	0.000	A	9.2	0.001	-	----	----	-	----	----
		C	21.6	0.024	B	13.8	0.003	C	21.9	0.025	B	13.9	0.003	-	----	----	-	----	----
4A	NYS ROUTE 22 / LINCOLN AVENUE PROPOSED SITE DRIVEWAY UNSIGNALIZED NYS ROUTE 22 - SB APPROACH - LTR NYS ROUTE 22 - NB APPROACH - LTR LINCOLN AVENUE - WB APPROACH - LTR PROPOSED SITE DRWY - EB APPROACH - LTR	-	----	----	-	----	----	-	----	----	-	----	----	A	0.0	0.000	A	9.2	0.001
		-	----	----	-	----	----	-	----	----	-	----	----	A	9.4	0.003	A	8.4	0.002
		-	----	----	-	----	----	-	----	----	-	----	----	D	26.6	0.031	B	13.9	0.003
		-	----	----	-	----	----	-	----	----	-	----	----	E	36.4	0.027	D	30.7	0.022

THE ABOVE REPRESENTS THE LEVELS OF SERVICE, VEHICLE DELAY IN SECONDS AND VOLUME-TO-CAPACITY (V/C) RATIO



***FIRE HEADQUARTERS
BEDFORD VILLAGE FIRE DISTRICT***

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.



LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 18-4 from the *2010 Highway Capacity Manual* published by the Transportation Research Board.

Exhibit 18-4

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤1.0	v/c >1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.



LEVEL OF SERVICE CRITERIA
FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 19-1 from the *2010 Highway Capacity Manual* published by the Transportation Research Board.

Exhibit 19-1

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤1.0	v/c >1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 19-1 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.



LEVEL OF SERVICE CRITERIA

FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 20-2. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 20-2 from the *2010 Highway Capacity Manual* published by the Transportation Research Board.

Exhibit 20-2

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio	
	v/c ≤1.0	v/c >1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

For approaches and intersection wide assessment, LOS is defined solely by control delay.













***FIRE HEADQUARTERS
BEDFORD VILLAGE FIRE DISTRICT***

APPENDIX D

SYNCHRO ANALYSIS

Year 2018 Existing Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak AM Highway Hour
09/14/2018

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	538	0	197	352	0	388
Future Volume (vph)	538	0	197	352	0	388
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	10		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.913			
Flt Protected	0.950					
Satd. Flow (prot)	1736	1900	1566	0	0	1667
Flt Permitted	0.950					
Satd. Flow (perm)	1736	1900	1566	0	0	1667
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			174			
Link Speed (mph)	30		30			30
Link Distance (ft)	596		926			539
Travel Time (s)	13.5		21.0			12.3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	0%	14%	9%	0%	14%
Adj. Flow (vph)	549	0	201	359	0	396
Shared Lane Traffic (%)						
Lane Group Flow (vph)	549	0	560	0	0	396
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	2			2
Detector Template		Right	Thru			
Leading Detector (ft)	83	20	100			83
Trailing Detector (ft)	-5	0	0			-5
Detector 1 Position(ft)	-5	0	0			-5
Detector 1 Size(ft)	40	20	6			40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0
Detector 2 Position(ft)	43		94			43
Detector 2 Size(ft)	40		6			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6

Year 2018 Existing Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak AM Highway Hour
09/14/2018



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		4				
Detector Phase	4	4	2			6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0			5.0
Minimum Split (s)	11.1	11.1	11.9			11.9
Total Split (s)	30.0	30.0	60.0			60.0
Total Split (%)	33.3%	33.3%	66.7%			66.7%
Maximum Green (s)	23.9	23.9	53.1			53.1
Yellow Time (s)	3.6	3.6	3.6			3.6
All-Red Time (s)	2.5	2.5	3.3			3.3
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.1	6.1	6.9			6.9
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Recall Mode	None	None	Min			Min
Act Effct Green (s)	24.3		22.1			22.1
Actuated g/C Ratio	0.41		0.37			0.37
v/c Ratio	0.78		0.81			0.64
Control Delay	28.1		21.2			20.0
Queue Delay	0.0		0.0			0.0
Total Delay	28.1		21.2			20.0
LOS	C		C			B
Approach Delay	28.1		21.2			20.0
Approach LOS	C		C			B
Queue Length 50th (ft)	160		118			112
Queue Length 95th (ft)	#429		225			183
Internal Link Dist (ft)	516		846			459
Turn Bay Length (ft)						
Base Capacity (vph)	708		1411			1482
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.78		0.40			0.27

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 59.7
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 23.4
 Intersection Capacity Utilization 72.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 22 & NYS Route 172



Year 2018 Existing Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak AM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	85	71	463	66	252	672
Future Volume (vph)	85	71	463	66	252	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.983			
Flt Protected	0.973					0.987
Satd. Flow (prot)	1626	0	1710	0	0	1889
Flt Permitted	0.973					0.659
Satd. Flow (perm)	1626	0	1710	0	0	1261
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46		9			
Link Speed (mph)	30		30			30
Link Distance (ft)	727		71			926
Travel Time (s)	16.5		1.6			21.0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	10%	9%	11%	15%	7%
Adj. Flow (vph)	91	76	498	71	271	723
Shared Lane Traffic (%)						
Lane Group Flow (vph)	167	0	569	0	0	994
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		2		1	2
Detector Template					Left	
Leading Detector (ft)	83		83		20	83
Trailing Detector (ft)	-5		-5		0	-5
Detector 1 Position(ft)	-5		-5		0	-5
Detector 1 Size(ft)	40		40		20	40
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)	43		43			43
Detector 2 Size(ft)	40		40			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot		NA		pm+pt	NA

Year 2018 Existing Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak AM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	5.0		10.0		5.0	10.0
Minimum Split (s)	20.0		40.0		15.0	40.0
Total Split (s)	30.0		40.0		20.0	60.0
Total Split (%)	33.3%		44.4%		22.2%	66.7%
Maximum Green (s)	25.0		35.0		15.0	55.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	5.0		5.0			5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Recall Mode	None		Max		None	Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	13.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	10.2		55.1			55.1
Actuated g/C Ratio	0.14		0.73			0.73
v/c Ratio	0.64		0.45			1.08
Control Delay	33.7		6.0			68.0
Queue Delay	0.0		0.0			0.0
Total Delay	33.7		6.0			68.0
LOS	C		A			E
Approach Delay	33.7		6.0			68.0
Approach LOS	C		A			E
Queue Length 50th (ft)	54		82			~526
Queue Length 95th (ft)	112		180			#829
Internal Link Dist (ft)	647		1			846
Turn Bay Length (ft)						
Base Capacity (vph)	571		1253			922
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.29		0.45			1.08

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	75.3
Natural Cycle:	140
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.08
Intersection Signal Delay:	44.3
Intersection Capacity Utilization:	99.2%
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: 2: Greenwich Road & NYS Route 22



Year 2018 Existing Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak AM Highway Hour
09/14/2018



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	528	756	1
Future Volume (vph)	1	1	1	528	756	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932					
Fl _t Protected	0.976					
Satd. Flow (prot)	1728	0	0	1728	1776	0
Fl _t Permitted	0.976					
Satd. Flow (perm)	1728	0	0	1728	1776	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	555			356	71	
Travel Time (s)	12.6			8.1	1.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	10%	7%	0%
Adj. Flow (vph)	1	1	1	568	813	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	569	814	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.9%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	1	1	528	756	1
Future Vol, veh/h	1	1	1	528	756	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	10	7	0
Mvmt Flow	1	1	1	568	813	1










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1384	814	814	0	-	0
Stage 1	814	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	160	381	822	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	160	381	822	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	438	-	-	-	-	-
Stage 2	570	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	21.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	822	-	225	-	-
HCM Lane V/C Ratio	0.001	-	0.01	-	-
HCM Control Delay (s)	9.4	0	21.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Year 2018 Existing Traffic Volumes
4: NYS Route 22 & Lincoln Avenue

Weekday Peak AM Highway Hour
09/14/2018

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	3	2	527	4	0	757
Future Volume (vph)	3	2	527	4	0	757
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.946		0.999			
Fl _t Protected	0.971					
Satd. Flow (prot)	1745	0	1681	0	0	1743
Fl _t Permitted	0.971					
Satd. Flow (perm)	1745	0	1681	0	0	1743
Link Speed (mph)	30		30			30
Link Distance (ft)	393		287			356
Travel Time (s)	8.9		6.5			8.1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	13%	0%	0%	9%
Adj. Flow (vph)	3	2	567	4	0	814
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	0	571	0	0	814
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	49.8%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	3	2	527	4	0	757
Future Vol, veh/h	3	2	527	4	0	757
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	13	0	0	9
Mvmt Flow	3	2	567	4	0	814

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1383	569	0	0	571	0
Stage 1	569	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	160	525	-	-	1012	-
Stage 1	570	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	160	525	-	-	1012	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	439	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	21.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	222	1012	-
HCM Lane V/C Ratio	-	-	0.024	-	-
HCM Control Delay (s)	-	-	21.6	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Year 2018 Existing Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak PM Highway Hour
09/14/2018

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↗			↘
Traffic Volume (vph)	321	0	370	524	0	183
Future Volume (vph)	321	0	370	524	0	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	10		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.921			
Flt Protected	0.950					
Satd. Flow (prot)	1719	1900	1716	0	0	1810
Flt Permitted	0.950					
Satd. Flow (perm)	1719	1900	1716	0	0	1810
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			138			
Link Speed (mph)	30		30			30
Link Distance (ft)	596		926			539
Travel Time (s)	13.5		21.0			12.3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	0%	2%	2%	0%	5%
Adj. Flow (vph)	331	0	381	540	0	189
Shared Lane Traffic (%)						
Lane Group Flow (vph)	331	0	921	0	0	189
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	2			2
Detector Template		Right	Thru			
Leading Detector (ft)	83	20	100			83
Trailing Detector (ft)	-5	0	0			-5
Detector 1 Position(ft)	-5	0	0			-5
Detector 1 Size(ft)	40	20	6			40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0
Detector 2 Position(ft)	43		94			43
Detector 2 Size(ft)	40		6			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6

Year 2018 Existing Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak PM Highway Hour
09/14/2018

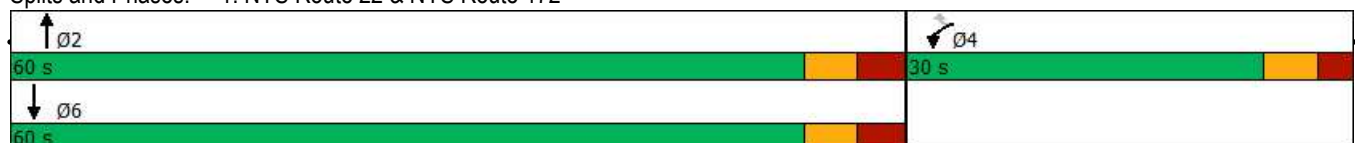


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		4				
Detector Phase	4	4	2			6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0			5.0
Minimum Split (s)	11.1	11.1	11.9			11.9
Total Split (s)	30.0	30.0	60.0			60.0
Total Split (%)	33.3%	33.3%	66.7%			66.7%
Maximum Green (s)	23.9	23.9	53.1			53.1
Yellow Time (s)	3.6	3.6	3.6			3.6
All-Red Time (s)	2.5	2.5	3.3			3.3
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.1	6.1	6.9			6.9
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Recall Mode	None	None	Min			Min
Act Effect Green (s)	18.6		42.7			42.7
Actuated g/C Ratio	0.25		0.57			0.57
v/c Ratio	0.78		0.89			0.18
Control Delay	42.0		24.7			8.6
Queue Delay	0.0		0.0			0.0
Total Delay	42.0		24.7			8.6
LOS	D		C			A
Approach Delay	42.0		24.7			8.6
Approach LOS	D		C			A
Queue Length 50th (ft)	158		314			41
Queue Length 95th (ft)	#287		#657			77
Internal Link Dist (ft)	516		846			459
Turn Bay Length (ft)						
Base Capacity (vph)	579		1289			1319
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.57		0.71			0.14

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 75
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 26.6
 Intersection Capacity Utilization 80.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 22 & NYS Route 172



Year 2018 Existing Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak PM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	71	214	641	75	109	398
Future Volume (vph)	71	214	641	75	109	398
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00					
Frt	0.899		0.986			
Flt Protected	0.988					0.989
Satd. Flow (prot)	1623	0	1839	0	0	1951
Flt Permitted	0.988					0.690
Satd. Flow (perm)	1619	0	1839	0	0	1361
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	166		8			
Link Speed (mph)	30		30			30
Link Distance (ft)	727		71			926
Travel Time (s)	16.5		1.6			21.0
Confl. Peds. (#/hr)	4					
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	3%	2%	1%	2%	7%
Adj. Flow (vph)	76	228	682	80	116	423
Shared Lane Traffic (%)						
Lane Group Flow (vph)	304	0	762	0	0	539
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		2		1	2
Detector Template					Left	
Leading Detector (ft)	83		83		20	83
Trailing Detector (ft)	-5		-5		0	-5
Detector 1 Position(ft)	-5		-5		0	-5
Detector 1 Size(ft)	40		40		20	40
Detector 1 Type	CI+Ex		CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)	43		43			43
Detector 2 Size(ft)	40		40			40
Detector 2 Type	CI+Ex		CI+Ex			CI+Ex
Detector 2 Channel						

Year 2018 Existing Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak PM Highway Hour
09/14/2018



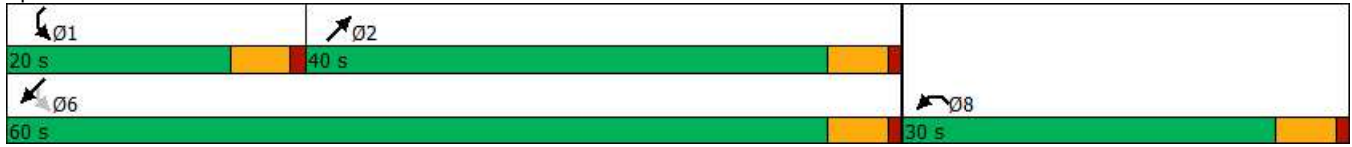
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	5.0		10.0		5.0	10.0
Minimum Split (s)	20.0		40.0		15.0	40.0
Total Split (s)	30.0		40.0		20.0	60.0
Total Split (%)	33.3%		44.4%		22.2%	66.7%
Maximum Green (s)	25.0		35.0		15.0	55.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	5.0		5.0			5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Recall Mode	None		Max		None	Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	13.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	11.8		55.2			55.2
Actuated g/C Ratio	0.15		0.72			0.72
v/c Ratio	0.78		0.58			0.55
Control Delay	28.6		8.5			9.0
Queue Delay	0.0		0.0			0.0
Total Delay	28.6		8.5			9.0
LOS	C		A			A
Approach Delay	28.6		8.5			9.0
Approach LOS	C		A			A
Queue Length 50th (ft)	62		139			97
Queue Length 95th (ft)	145		332			251
Internal Link Dist (ft)	647		1			846
Turn Bay Length (ft)						
Base Capacity (vph)	640		1319			975
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.47		0.58			0.55

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	77.1
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.78
Intersection Signal Delay:	12.5
Intersection Capacity Utilization:	94.9%
Intersection LOS:	B
ICU Level of Service:	F

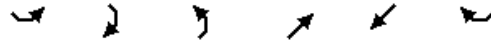
Analysis Period (min) 15

Splits and Phases: 2: Greenwich Road & NYS Route 22



Year 2018 Existing Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak PM Highway Hour
09/14/2018



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	715	468	1
Future Volume (vph)	1	1	1	715	468	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1728	0	0	1863	1776	0
Flt Permitted	0.976					
Satd. Flow (perm)	1728	0	0	1863	1776	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	555			356	71	
Travel Time (s)	12.6			8.1	1.6	
Confl. Peds. (#/hr)	7	11	11			7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	2%	7%	0%
Adj. Flow (vph)	1	1	1	761	498	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	762	499	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 51.5% ICU Level of Service A
 Analysis Period (min) 15

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	1	1	715	468	1
Future Vol, veh/h	1	1	1	715	468	1
Conflicting Peds, #/hr	7	11	11	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	2	7	0
Mvmt Flow	1	1	1	761	498	1










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1280	521	510	0	-	0
Stage 1	510	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	185	559	1065	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	181	547	1054	-	-	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	600	-	-	-	-	-
Stage 2	455	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	18.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1054	-	272	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.4	0	18.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Year 2018 Existing Traffic Volumes
4: NYS Route 22 & Lincoln Avenue

Weekday Peak PM Highway Hour
09/14/2018

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	1	715	4	1	468
Future Volume (vph)	0	1	715	4	1	468
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865		0.999			
Flt Protected						
Satd. Flow (prot)	1644	0	1843	0	0	1793
Flt Permitted						
Satd. Flow (perm)	1644	0	1843	0	0	1793
Link Speed (mph)	30		30			30
Link Distance (ft)	393		287			356
Travel Time (s)	8.9		6.5			8.1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	3%	0%	0%	6%
Adj. Flow (vph)	0	1	761	4	1	498
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	0	765	0	0	499
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	47.9%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	0	1	715	4	1	468
Future Vol, veh/h	0	1	715	4	1	468
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	3	0	0	6
Mvmt Flow	0	1	761	4	1	498











Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1263	763	0	0	765
Stage 1	763	-	-	-	-
Stage 2	500	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	189	408	-	-	857
Stage 1	464	-	-	-	-
Stage 2	613	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	189	408	-	-	857
Mov Cap-2 Maneuver	189	-	-	-	-
Stage 1	463	-	-	-	-
Stage 2	613	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	13.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	408	857	-
HCM Lane V/C Ratio	-	-	0.003	0.001	-
HCM Control Delay (s)	-	-	13.8	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Year 2020 No-Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak AM Highway Hour
09/14/2018

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	543	0	199	356	0	392
Future Volume (vph)	543	0	199	356	0	392
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	10		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.913			
Flt Protected	0.950					
Satd. Flow (prot)	1736	1900	1566	0	0	1667
Flt Permitted	0.950					
Satd. Flow (perm)	1736	1900	1566	0	0	1667
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			174			
Link Speed (mph)	30		30			30
Link Distance (ft)	596		926			539
Travel Time (s)	13.5		21.0			12.3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	0%	14%	9%	0%	14%
Adj. Flow (vph)	554	0	203	363	0	400
Shared Lane Traffic (%)						
Lane Group Flow (vph)	554	0	566	0	0	400
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	2			2
Detector Template		Right	Thru			
Leading Detector (ft)	83	20	100			83
Trailing Detector (ft)	-5	0	0			-5
Detector 1 Position(ft)	-5	0	0			-5
Detector 1 Size(ft)	40	20	6			40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0
Detector 2 Position(ft)	43		94			43
Detector 2 Size(ft)	40		6			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6

Year 2020 No-Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak AM Highway Hour
09/14/2018

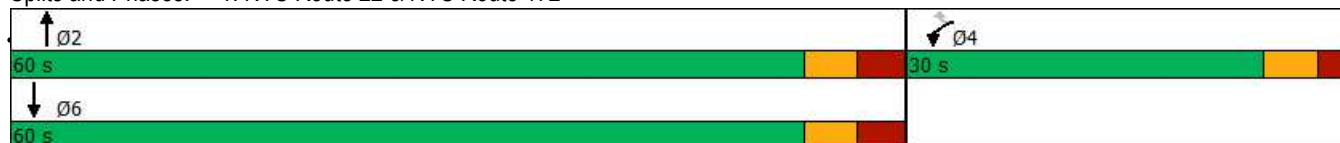


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		4				
Detector Phase	4	4	2			6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0			5.0
Minimum Split (s)	11.1	11.1	11.9			11.9
Total Split (s)	30.0	30.0	60.0			60.0
Total Split (%)	33.3%	33.3%	66.7%			66.7%
Maximum Green (s)	23.9	23.9	53.1			53.1
Yellow Time (s)	3.6	3.6	3.6			3.6
All-Red Time (s)	2.5	2.5	3.3			3.3
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.1	6.1	6.9			6.9
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Recall Mode	None	None	Min			Min
Act Effct Green (s)	24.3		22.4			22.4
Actuated g/C Ratio	0.40		0.37			0.37
v/c Ratio	0.79		0.82			0.64
Control Delay	28.9		21.3			19.9
Queue Delay	0.0		0.0			0.0
Total Delay	28.9		21.3			19.9
LOS	C		C			B
Approach Delay	28.9		21.3			19.9
Approach LOS	C		C			B
Queue Length 50th (ft)	163		121			113
Queue Length 95th (ft)	#439		229			185
Internal Link Dist (ft)	516		846			459
Turn Bay Length (ft)						
Base Capacity (vph)	704		1405			1475
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.79		0.40			0.27

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 60
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 23.7
 Intersection LOS: C
 Intersection Capacity Utilization 73.2%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 22 & NYS Route 172



Year 2020 No-Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak AM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	86	72	468	67	255	679
Future Volume (vph)	86	72	468	67	255	679
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.938		0.983			
Fl _t Protected	0.974					0.987
Satd. Flow (prot)	1626	0	1710	0	0	1889
Fl _t Permitted	0.974					0.654
Satd. Flow (perm)	1626	0	1710	0	0	1252
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	46		9			
Link Speed (mph)	30		30			30
Link Distance (ft)	727		71			926
Travel Time (s)	16.5		1.6			21.0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	10%	9%	11%	15%	7%
Adj. Flow (vph)	92	77	503	72	274	730
Shared Lane Traffic (%)						
Lane Group Flow (vph)	169	0	575	0	0	1004
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		2		1	2
Detector Template					Left	
Leading Detector (ft)	83		83		20	83
Trailing Detector (ft)	-5		-5		0	-5
Detector 1 Position(ft)	-5		-5		0	-5
Detector 1 Size(ft)	40		40		20	40
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)	43		43			43
Detector 2 Size(ft)	40		40			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot		NA		pm+pt	NA

Year 2020 No-Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak AM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	5.0		10.0		5.0	10.0
Minimum Split (s)	20.0		40.0		15.0	40.0
Total Split (s)	30.0		40.0		20.0	60.0
Total Split (%)	33.3%		44.4%		22.2%	66.7%
Maximum Green (s)	25.0		35.0		15.0	55.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	5.0		5.0			5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Recall Mode	None		Max		None	Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	13.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	10.3		55.1			55.1
Actuated g/C Ratio	0.14		0.73			0.73
v/c Ratio	0.65		0.46			1.10
Control Delay	34.0		6.0			75.5
Queue Delay	0.0		0.0			0.0
Total Delay	34.0		6.0			75.5
LOS	C		A			E
Approach Delay	34.0		6.0			75.5
Approach LOS	C		A			E
Queue Length 50th (ft)	55		84			~540
Queue Length 95th (ft)	114		184			#846
Internal Link Dist (ft)	647		1			846
Turn Bay Length (ft)						
Base Capacity (vph)	570		1252			915
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.30		0.46			1.10

Intersection Summary

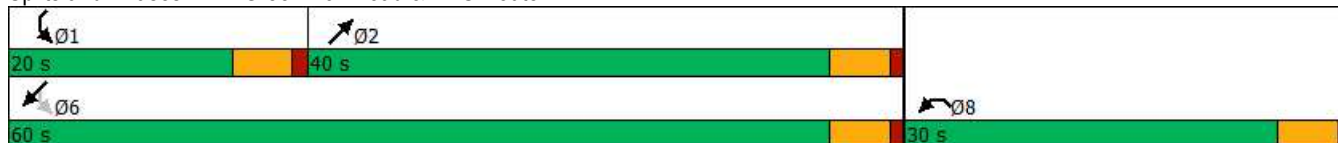
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	75.4
Natural Cycle:	140
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.10
Intersection Signal Delay:	48.7
Intersection Capacity Utilization:	100.2%
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite.	

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: 2: Greenwich Road & NYS Route 22



Year 2020 No-Build Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak AM Highway Hour
09/14/2018



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	533	764	1
Future Volume (vph)	1	1	1	533	764	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932					
Fl _t Protected	0.976					
Satd. Flow (prot)	1728	0	0	1728	1776	0
Fl _t Permitted	0.976					
Satd. Flow (perm)	1728	0	0	1728	1776	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	555			356	71	
Travel Time (s)	12.6			8.1	1.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	10%	7%	0%
Adj. Flow (vph)	1	1	1	573	822	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	574	823	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.3%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	1	1	533	764	1
Future Vol, veh/h	1	1	1	533	764	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	10	7	0
Mvmt Flow	1	1	1	573	822	1










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1398	823	823	0	-	0
Stage 1	823	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	157	377	816	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	567	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	157	377	816	-	-	-
Mov Cap-2 Maneuver	157	-	-	-	-	-
Stage 1	434	-	-	-	-	-
Stage 2	567	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	21.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	816	-	222	-	-
HCM Lane V/C Ratio	0.001	-	0.01	-	-
HCM Control Delay (s)	9.4	0	21.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Year 2020 No-Build Traffic Volumes
4: NYS Route 22 & Lincoln Avenue

Weekday Peak AM Highway Hour
09/14/2018

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	3	2	532	4	0	765
Future Volume (vph)	3	2	532	4	0	765
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.946		0.999			
Fl _t Protected	0.971					
Satd. Flow (prot)	1745	0	1681	0	0	1743
Fl _t Permitted	0.971					
Satd. Flow (perm)	1745	0	1681	0	0	1743
Link Speed (mph)	30		30			30
Link Distance (ft)	393		287			356
Travel Time (s)	8.9		6.5			8.1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	13%	0%	0%	9%
Adj. Flow (vph)	3	2	572	4	0	823
Shared Lane Traffic (%)						
Lane Group Flow (vph)	5	0	576	0	0	823
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	50.3%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.1					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	↔		↔			↔
Traffic Vol, veh/h	3	2	532	4	0	765
Future Vol, veh/h	3	2	532	4	0	765
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	13	0	0	9
Mvmt Flow	3	2	572	4	0	823











Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1397	574	0	0	576	0
Stage 1	574	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	157	522	-	-	1007	-
Stage 1	567	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	157	522	-	-	1007	-
Mov Cap-2 Maneuver	157	-	-	-	-	-
Stage 1	567	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	21.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	218	1007	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s)	-	-	21.9	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Year 2020 No-Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak PM Highway Hour
09/14/2018

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	324	0	374	529	0	185
Future Volume (vph)	324	0	374	529	0	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	10		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.921			
Flt Protected	0.950					
Satd. Flow (prot)	1719	1900	1716	0	0	1810
Flt Permitted	0.950					
Satd. Flow (perm)	1719	1900	1716	0	0	1810
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			138			
Link Speed (mph)	30		30			30
Link Distance (ft)	596		926			539
Travel Time (s)	13.5		21.0			12.3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	0%	2%	2%	0%	5%
Adj. Flow (vph)	334	0	386	545	0	191
Shared Lane Traffic (%)						
Lane Group Flow (vph)	334	0	931	0	0	191
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	2			2
Detector Template		Right	Thru			
Leading Detector (ft)	83	20	100			83
Trailing Detector (ft)	-5	0	0			-5
Detector 1 Position(ft)	-5	0	0			-5
Detector 1 Size(ft)	40	20	6			40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0
Detector 2 Position(ft)	43		94			43
Detector 2 Size(ft)	40		6			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6

Year 2020 No-Build Traffic Volumes
 1: NYS Route 22 & NYS Route 172

Weekday Peak PM Highway Hour
 09/14/2018

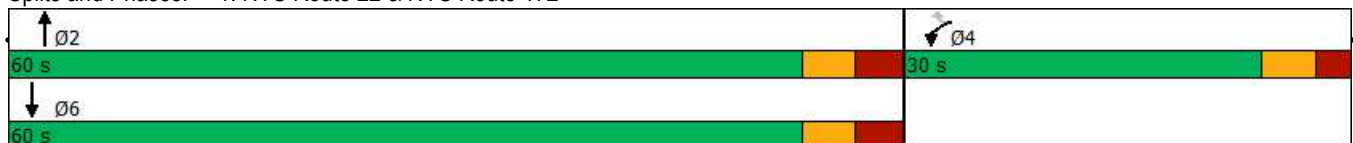


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		4				
Detector Phase	4	4	2			6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0			5.0
Minimum Split (s)	11.1	11.1	11.9			11.9
Total Split (s)	30.0	30.0	60.0			60.0
Total Split (%)	33.3%	33.3%	66.7%			66.7%
Maximum Green (s)	23.9	23.9	53.1			53.1
Yellow Time (s)	3.6	3.6	3.6			3.6
All-Red Time (s)	2.5	2.5	3.3			3.3
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.1	6.1	6.9			6.9
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Recall Mode	None	None	Min			Min
Act Effect Green (s)	18.8		43.4			43.4
Actuated g/C Ratio	0.25		0.57			0.57
v/c Ratio	0.79		0.90			0.18
Control Delay	42.8		25.4			8.6
Queue Delay	0.0		0.0			0.0
Total Delay	42.8		25.4			8.6
LOS	D		C			A
Approach Delay	42.8		25.4			8.6
Approach LOS	D		C			A
Queue Length 50th (ft)	164		329			42
Queue Length 95th (ft)	#291		#669			78
Internal Link Dist (ft)	516		846			459
Turn Bay Length (ft)						
Base Capacity (vph)	572		1278			1308
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.58		0.73			0.15

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 75.9
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 27.2
 Intersection LOS: C
 Intersection Capacity Utilization 80.9%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 22 & NYS Route 172



Year 2020 No-Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak PM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	72	216	647	76	110	402
Future Volume (vph)	72	216	647	76	110	402
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00					
Fr _t	0.899		0.986			
Fl _t Protected	0.988					0.989
Satd. Flow (prot)	1623	0	1839	0	0	1951
Fl _t Permitted	0.988					0.681
Satd. Flow (perm)	1619	0	1839	0	0	1344
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	165		8			
Link Speed (mph)	30		30			30
Link Distance (ft)	727		71			926
Travel Time (s)	16.5		1.6			21.0
Confl. Peds. (#/hr)	4					
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	3%	2%	1%	2%	7%
Adj. Flow (vph)	77	230	688	81	117	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	0	769	0	0	545
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		2		1	2
Detector Template					Left	
Leading Detector (ft)	83		83		20	83
Trailing Detector (ft)	-5		-5		0	-5
Detector 1 Position(ft)	-5		-5		0	-5
Detector 1 Size(ft)	40		40		20	40
Detector 1 Type	CI+Ex		CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)	43		43			43
Detector 2 Size(ft)	40		40			40
Detector 2 Type	CI+Ex		CI+Ex			CI+Ex
Detector 2 Channel						

Year 2020 No-Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak PM Highway Hour
09/14/2018



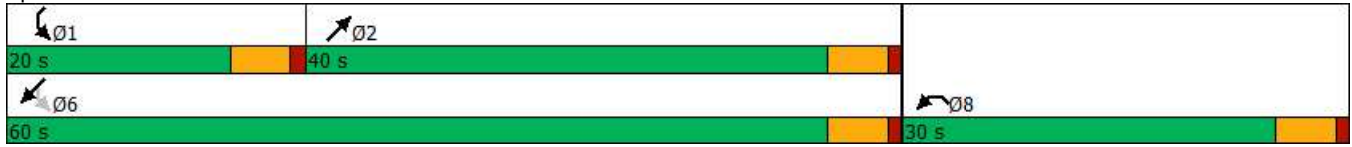
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	5.0		10.0		5.0	10.0
Minimum Split (s)	20.0		40.0		15.0	40.0
Total Split (s)	30.0		40.0		20.0	60.0
Total Split (%)	33.3%		44.4%		22.2%	66.7%
Maximum Green (s)	25.0		35.0		15.0	55.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	5.0		5.0			5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Recall Mode	None		Max		None	Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	13.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	12.0		55.2			55.2
Actuated g/C Ratio	0.16		0.71			0.71
v/c Ratio	0.79		0.58			0.57
Control Delay	28.9		8.7			9.5
Queue Delay	0.0		0.0			0.0
Total Delay	28.9		8.7			9.5
LOS	C		A			A
Approach Delay	28.9		8.7			9.5
Approach LOS	C		A			A
Queue Length 50th (ft)	64		143			101
Queue Length 95th (ft)	149		343			265
Internal Link Dist (ft)	647		1			846
Turn Bay Length (ft)						
Base Capacity (vph)	638		1316			960
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.48		0.58			0.57

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	77.3
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	12.8
Intersection Capacity Utilization:	95.7%
Intersection LOS:	B
ICU Level of Service:	F

Analysis Period (min) 15

Splits and Phases: 2: Greenwich Road & NYS Route 22



Year 2020 No-Build Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak PM Highway Hour
09/14/2018



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	722	473	1
Future Volume (vph)	1	1	1	722	473	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1728	0	0	1863	1776	0
Flt Permitted	0.976					
Satd. Flow (perm)	1728	0	0	1863	1776	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	555			356	71	
Travel Time (s)	12.6			8.1	1.6	
Confl. Peds. (#/hr)	7	11	11			7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	2%	7%	0%
Adj. Flow (vph)	1	1	1	768	503	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	769	504	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.9%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	1	1	722	473	1
Future Vol, veh/h	1	1	1	722	473	1
Conflicting Peds, #/hr	7	11	11	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	2	7	0
Mvmt Flow	1	1	1	768	503	1










Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1292	526	515	0	-	0
Stage 1	515	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	182	556	1061	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	457	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	178	544	1050	-	-	-
Mov Cap-2 Maneuver	178	-	-	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	452	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	18.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1050	-	268	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.4	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Year 2020 No-Build Traffic Volumes
4: NYS Route 22 & Lincoln Avenue

Weekday Peak PM Highway Hour
09/14/2018

						
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	0	1	722	4	1	473
Future Volume (vph)	0	1	722	4	1	473
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.865		0.999			
Flt Protected						
Satd. Flow (prot)	1644	0	1843	0	0	1793
Flt Permitted						
Satd. Flow (perm)	1644	0	1843	0	0	1793
Link Speed (mph)	30		30			30
Link Distance (ft)	393		287			356
Travel Time (s)	8.9		6.5			8.1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	3%	0%	0%	6%
Adj. Flow (vph)	0	1	768	4	1	503
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	0	772	0	0	504
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	48.2%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0					
Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	0	1	722	4	1	473
Future Vol, veh/h	0	1	722	4	1	473
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	3	0	0	6
Mvmt Flow	0	1	768	4	1	503

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1275	770	0	0	772	0
Stage 1	770	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	186	404	-	-	852	-
Stage 1	460	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	186	404	-	-	852	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	459	-	-	-	-	-
Stage 2	610	-	-	-	-	-

Approach	NW	NE	SW
HCM Control Delay, s	13.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	404	852	-
HCM Lane V/C Ratio	-	-	0.003	0.001	-
HCM Control Delay (s)	-	-	13.9	9.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Year 2020 Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak AM Highway Hour
09/14/2018

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↗			↘
Traffic Volume (vph)	547	0	202	356	0	394
Future Volume (vph)	547	0	202	356	0	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	10		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.914			
Flt Protected	0.950					
Satd. Flow (prot)	1736	1900	1567	0	0	1667
Flt Permitted	0.950					
Satd. Flow (perm)	1736	1900	1567	0	0	1667
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			172			
Link Speed (mph)	30		30			30
Link Distance (ft)	596		926			539
Travel Time (s)	13.5		21.0			12.3
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	0%	14%	9%	0%	14%
Adj. Flow (vph)	558	0	206	363	0	402
Shared Lane Traffic (%)						
Lane Group Flow (vph)	558	0	569	0	0	402
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	2			2
Detector Template		Right	Thru			
Leading Detector (ft)	83	20	100			83
Trailing Detector (ft)	-5	0	0			-5
Detector 1 Position(ft)	-5	0	0			-5
Detector 1 Size(ft)	40	20	6			40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0
Detector 2 Position(ft)	43		94			43
Detector 2 Size(ft)	40		6			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6

Year 2020 Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak AM Highway Hour
09/14/2018

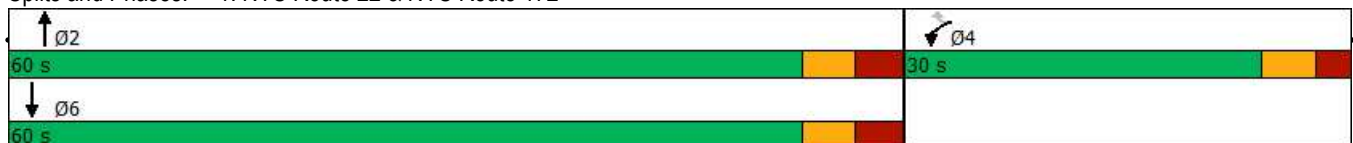


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		4				
Detector Phase	4	4	2			6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0			5.0
Minimum Split (s)	11.1	11.1	11.9			11.9
Total Split (s)	30.0	30.0	60.0			60.0
Total Split (%)	33.3%	33.3%	66.7%			66.7%
Maximum Green (s)	23.9	23.9	53.1			53.1
Yellow Time (s)	3.6	3.6	3.6			3.6
All-Red Time (s)	2.5	2.5	3.3			3.3
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.1	6.1	6.9			6.9
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Recall Mode	None	None	Min			Min
Act Effct Green (s)	24.3		22.6			22.6
Actuated g/C Ratio	0.40		0.38			0.38
v/c Ratio	0.79		0.82			0.64
Control Delay	29.6		21.5			19.9
Queue Delay	0.0		0.0			0.0
Total Delay	29.6		21.5			19.9
LOS	C		C			B
Approach Delay	29.6		21.5			19.9
Approach LOS	C		C			B
Queue Length 50th (ft)	166		123			114
Queue Length 95th (ft)	#447		231			186
Internal Link Dist (ft)	516		846			459
Turn Bay Length (ft)						
Base Capacity (vph)	702		1402			1470
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.79		0.41			0.27

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 60.2
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 24.0
 Intersection Capacity Utilization 73.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 22 & NYS Route 172



Year 2020 Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak AM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	88	72	470	67	255	684
Future Volume (vph)	88	72	470	67	255	684
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.940		0.983			
Fl _t Protected	0.973					0.987
Satd. Flow (prot)	1629	0	1710	0	0	1890
Fl _t Permitted	0.973					0.653
Satd. Flow (perm)	1629	0	1710	0	0	1250
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	45		9			
Link Speed (mph)	30		30			30
Link Distance (ft)	727		71			926
Travel Time (s)	16.5		1.6			21.0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	10%	9%	11%	15%	7%
Adj. Flow (vph)	95	77	505	72	274	735
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	0	577	0	0	1009
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		2		1	2
Detector Template					Left	
Leading Detector (ft)	83		83		20	83
Trailing Detector (ft)	-5		-5		0	-5
Detector 1 Position(ft)	-5		-5		0	-5
Detector 1 Size(ft)	40		40		20	40
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)	43		43			43
Detector 2 Size(ft)	40		40			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot		NA		pm+pt	NA

Year 2020 Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak AM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	5.0		10.0		5.0	10.0
Minimum Split (s)	20.0		40.0		15.0	40.0
Total Split (s)	30.0		40.0		20.0	60.0
Total Split (%)	33.3%		44.4%		22.2%	66.7%
Maximum Green (s)	25.0		35.0		15.0	55.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	5.0		5.0			5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Recall Mode	None		Max		None	Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	13.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	10.5		55.1			55.1
Actuated g/C Ratio	0.14		0.73			0.73
v/c Ratio	0.65		0.46			1.11
Control Delay	34.3		6.2			79.6
Queue Delay	0.0		0.0			0.0
Total Delay	34.3		6.2			79.6
LOS	C		A			E
Approach Delay	34.3		6.2			79.6
Approach LOS	C		A			E
Queue Length 50th (ft)	56		86			~549
Queue Length 95th (ft)	116		188			#856
Internal Link Dist (ft)	647		1			846
Turn Bay Length (ft)						
Base Capacity (vph)	569		1249			911
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.30		0.46			1.11

Intersection Summary

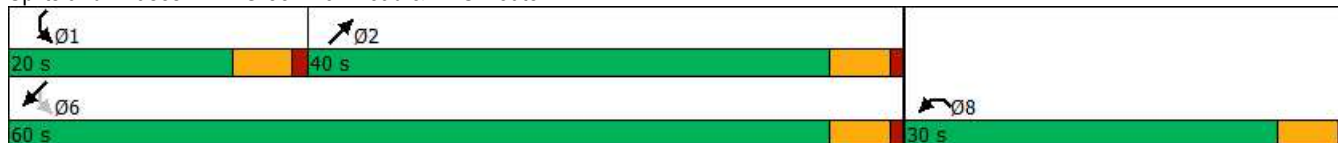
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	75.6
Natural Cycle:	140
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.11
Intersection Signal Delay:	51.1
Intersection Capacity Utilization:	100.7%
Analysis Period (min):	15
~ Volume exceeds capacity, queue is theoretically infinite.	

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: 2: Greenwich Road & NYS Route 22



Year 2020 Build Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak AM Highway Hour
09/14/2018



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	536	764	9
Future Volume (vph)	1	1	1	536	764	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932			0.998		
Fl _t Protected	0.976					
Satd. Flow (prot)	1728	0	0	1728	1774	0
Fl _t Permitted	0.976					
Satd. Flow (perm)	1728	0	0	1728	1774	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	555			356	71	
Travel Time (s)	12.6			8.1	1.6	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	10%	7%	0%
Adj. Flow (vph)	1	1	1	576	822	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	577	832	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	50.8%
ICU Level of Service	A
Analysis Period (min)	15

Year 2020 Build Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak AM Highway Hour
09/14/2018

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	1	1	536	764	9
Future Vol, veh/h	1	1	1	536	764	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	10	7	0
Mvmt Flow	1	1	1	576	822	10













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1405	827	832	0	-	0
Stage 1	827	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	155	375	809	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	155	375	809	-	-	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	565	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	21.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	809	-	219	-	-
HCM Lane V/C Ratio	0.001	-	0.01	-	-
HCM Control Delay (s)	9.5	0	21.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Year 2020 Build Traffic Volumes
4: NYS Route 22 & Lincoln Avenue/Site Driveway

Weekday Peak AM Highway Hour
09/14/2018

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	0	3	0	2	2	532	4	0	765	0
Future Volume (vph)	3	0	0	3	0	2	2	532	4	0	765	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t					0.946			0.999				
Fl _t Protected		0.950			0.971							
Satd. Flow (prot)	0	1805	0	0	1745	0	0	1682	0	0	1743	0
Fl _t Permitted		0.950			0.971							
Satd. Flow (perm)	0	1805	0	0	1745	0	0	1682	0	0	1743	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		241			393			287			356	
Travel Time (s)		5.5			8.9			6.5			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	13%	0%	0%	9%	0%
Adj. Flow (vph)	3	0	0	3	0	2	2	572	4	0	823	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	5	0	0	578	0	0	823	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 50.3% ICU Level of Service A
 Analysis Period (min) 15

Year 2020 Build Traffic Volumes
4: NYS Route 22 & Lincoln Avenue/Site Driveway

Weekday Peak AM Highway Hour
09/14/2018

Intersection												
Int Delay, s/veh	0.2											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	3	0	2	2	532	4	0	765	0
Future Vol, veh/h	3	0	0	3	0	2	2	532	4	0	765	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	92
Heavy Vehicles, %	0	0	0	0	0	0	0	13	0	0	9	0
Mvmt Flow	3	0	0	3	0	2	2	572	4	0	823	0











Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1402	1403	823	1401	1401	574	823	0	0	576	0	0
Stage 1	823	823	-	578	578	-	-	-	-	-	-	-
Stage 2	579	580	-	823	823	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	119	141	377	119	141	522	816	-	-	1007	-	-
Stage 1	371	391	-	505	504	-	-	-	-	-	-	-
Stage 2	504	503	-	371	391	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	118	140	377	119	140	522	816	-	-	1007	-	-
Mov Cap-2 Maneuver	118	140	-	119	140	-	-	-	-	-	-	-
Stage 1	370	391	-	503	502	-	-	-	-	-	-	-
Stage 2	500	501	-	371	391	-	-	-	-	-	-	-

Approach	SE		NW		NE		SW	
HCM Control Delay, s	36.4		26.6		0		0	
HCM LOS	E		D					

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	816	-	-	172	118	1007	-
HCM Lane V/C Ratio	0.003	-	-	0.031	0.027	-	-
HCM Control Delay (s)	9.4	0	-	26.6	36.4	0	-
HCM Lane LOS	A	A	-	D	E	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-

Year 2020 Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak PM Highway Hour
09/14/2018

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	328	0	377	529	0	187
Future Volume (vph)	328	0	377	529	0	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	10		0	0	
Storage Lanes	1	1		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.921			
Flt Protected	0.950					
Satd. Flow (prot)	1719	1900	1716	0	0	1810
Flt Permitted	0.950					
Satd. Flow (perm)	1719	1900	1716	0	0	1810
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)			137			
Link Speed (mph)	30		30			30
Link Distance (ft)	596		926			539
Travel Time (s)	13.5		21.0			12.3
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	5%	0%	2%	2%	0%	5%
Adj. Flow (vph)	338	0	389	545	0	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	338	0	934	0	0	193
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	1	2			2
Detector Template		Right	Thru			
Leading Detector (ft)	83	20	100			83
Trailing Detector (ft)	-5	0	0			-5
Detector 1 Position(ft)	-5	0	0			-5
Detector 1 Size(ft)	40	20	6			40
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0
Detector 2 Position(ft)	43		94			43
Detector 2 Size(ft)	40		6			40
Detector 2 Type	Cl+Ex		Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot	Perm	NA			NA
Protected Phases	4		2			6

Year 2020 Build Traffic Volumes
1: NYS Route 22 & NYS Route 172

Weekday Peak PM Highway Hour
09/14/2018

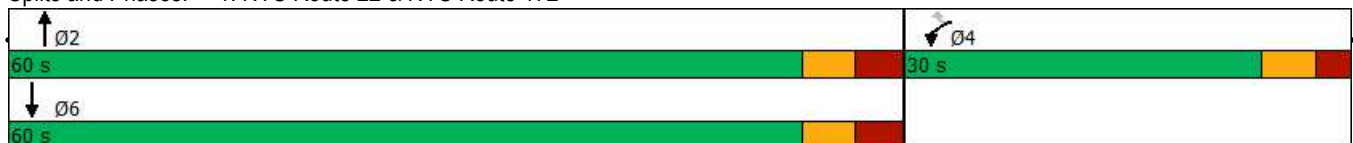


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Permitted Phases		4				
Detector Phase	4	4	2			6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0			5.0
Minimum Split (s)	11.1	11.1	11.9			11.9
Total Split (s)	30.0	30.0	60.0			60.0
Total Split (%)	33.3%	33.3%	66.7%			66.7%
Maximum Green (s)	23.9	23.9	53.1			53.1
Yellow Time (s)	3.6	3.6	3.6			3.6
All-Red Time (s)	2.5	2.5	3.3			3.3
Lost Time Adjust (s)	0.0	0.0	0.0			0.0
Total Lost Time (s)	6.1	6.1	6.9			6.9
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0	2.0	3.0			3.0
Recall Mode	None	None	Min			Min
Act Effct Green (s)	19.0		43.6			43.6
Actuated g/C Ratio	0.25		0.57			0.57
v/c Ratio	0.79		0.90			0.19
Control Delay	43.1		25.9			8.7
Queue Delay	0.0		0.0			0.0
Total Delay	43.1		25.9			8.7
LOS	D		C			A
Approach Delay	43.1		25.9			8.7
Approach LOS	D		C			A
Queue Length 50th (ft)	169		338			43
Queue Length 95th (ft)	#296		#675			78
Internal Link Dist (ft)	516		846			459
Turn Bay Length (ft)						
Base Capacity (vph)	567		1271			1300
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.60		0.73			0.15

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 76.4
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 27.6
 Intersection Capacity Utilization 81.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 22 & NYS Route 172



Year 2020 Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak PM Highway Hour
09/14/2018

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	74	216	650	76	110	408
Future Volume (vph)	74	216	650	76	110	408
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00					
Frt	0.900		0.986			
Flt Protected	0.987					0.989
Satd. Flow (prot)	1623	0	1839	0	0	1951
Flt Permitted	0.987					0.677
Satd. Flow (perm)	1619	0	1839	0	0	1336
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	161		8			
Link Speed (mph)	30		30			30
Link Distance (ft)	727		71			926
Travel Time (s)	16.5		1.6			21.0
Confl. Peds. (#/hr)	4					
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	7%	3%	2%	1%	2%	7%
Adj. Flow (vph)	79	230	691	81	117	434
Shared Lane Traffic (%)						
Lane Group Flow (vph)	309	0	772	0	0	551
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2		2		1	2
Detector Template					Left	
Leading Detector (ft)	83		83		20	83
Trailing Detector (ft)	-5		-5		0	-5
Detector 1 Position(ft)	-5		-5		0	-5
Detector 1 Size(ft)	40		40		20	40
Detector 1 Type	CI+Ex		CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)	43		43			43
Detector 2 Size(ft)	40		40			40
Detector 2 Type	CI+Ex		CI+Ex			CI+Ex
Detector 2 Channel						

Year 2020 Build Traffic Volumes
2: Greenwich Road & NYS Route 22

Weekday Peak PM Highway Hour
09/14/2018



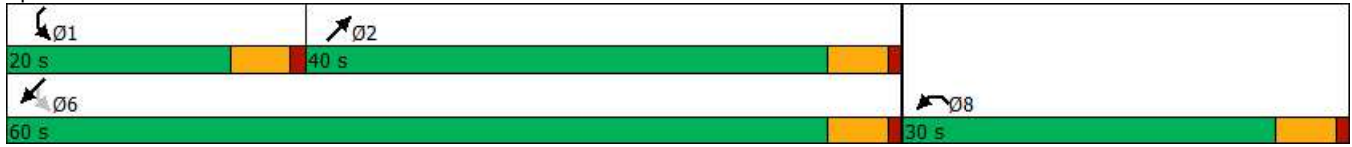
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0		0.0			0.0
Turn Type	Prot		NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases					6	
Detector Phase	8		2		1	6
Switch Phase						
Minimum Initial (s)	5.0		10.0		5.0	10.0
Minimum Split (s)	20.0		40.0		15.0	40.0
Total Split (s)	30.0		40.0		20.0	60.0
Total Split (%)	33.3%		44.4%		22.2%	66.7%
Maximum Green (s)	25.0		35.0		15.0	55.0
Yellow Time (s)	4.0		4.0		4.0	4.0
All-Red Time (s)	1.0		1.0		1.0	1.0
Lost Time Adjust (s)	0.0		0.0			0.0
Total Lost Time (s)	5.0		5.0			5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		5.0		2.0	5.0
Recall Mode	None		Max		None	Max
Walk Time (s)	7.0					
Flash Dont Walk (s)	13.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	12.3		55.3			55.3
Actuated g/C Ratio	0.16		0.71			0.71
v/c Ratio	0.79		0.59			0.58
Control Delay	29.6		8.9			9.9
Queue Delay	0.0		0.0			0.0
Total Delay	29.6		8.9			9.9
LOS	C		A			A
Approach Delay	29.6		8.9			9.9
Approach LOS	C		A			A
Queue Length 50th (ft)	67		148			106
Queue Length 95th (ft)	152		349			274
Internal Link Dist (ft)	647		1			846
Turn Bay Length (ft)						
Base Capacity (vph)	634		1311			951
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.49		0.59			0.58

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	77.6
Natural Cycle:	75
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	13.1
Intersection Capacity Utilization:	96.3%
Intersection LOS:	B
ICU Level of Service:	F

Analysis Period (min) 15

Splits and Phases: 2: Greenwich Road & NYS Route 22



Year 2020 Build Traffic Volumes
3: NYS Route 22 & Southbrook Drive

Weekday Peak PM Highway Hour
09/14/2018



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	725	473	9
Future Volume (vph)	1	1	1	725	473	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Fr t	0.932				0.997	
Fl t Protected	0.976					
Satd. Flow (prot)	1728	0	0	1863	1773	0
Fl t Permitted	0.976					
Satd. Flow (perm)	1728	0	0	1863	1773	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	555			356	71	
Travel Time (s)	12.6			8.1	1.6	
Confl. Peds. (#/hr)	7	11	11			7
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	2%	7%	0%
Adj. Flow (vph)	1	1	1	771	503	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	772	513	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.0%
ICU Level of Service	A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	1	1	1	725	473	9
Future Vol, veh/h	1	1	1	725	473	9
Conflicting Peds, #/hr	7	11	11	0	0	7
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	2	7	0
Mvmt Flow	1	1	1	771	503	10













Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1299	530	524	0	-	0
Stage 1	519	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	180	553	1053	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	176	541	1042	-	-	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	450	-	-	-	-	-

Approach	SE	NE	SW
HCM Control Delay, s	18.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SELn1	SWT	SWR
Capacity (veh/h)	1042	-	266	-	-
HCM Lane V/C Ratio	0.001	-	0.008	-	-
HCM Control Delay (s)	8.5	0	18.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Year 2020 Build Traffic Volumes
4: NYS Route 22 & Lincoln Avenue/Site Driveway

Weekday Peak PM Highway Hour
09/14/2018

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	3	0	0	0	0	1	2	722	4	1	473	0
Future Volume (vph)	3	0	0	0	0	1	2	722	4	1	473	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t					0.865			0.999				
Flt Protected		0.950										
Satd. Flow (prot)	0	1805	0	0	1644	0	0	1843	0	0	1793	0
Flt Permitted		0.950										
Satd. Flow (perm)	0	1805	0	0	1644	0	0	1843	0	0	1793	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		220			393			287			356	
Travel Time (s)		5.0			8.9			6.5			8.1	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	6%	0%
Adj. Flow (vph)	3	0	0	0	0	1	2	768	4	1	503	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	1	0	0	774	0	0	504	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 49.7% ICU Level of Service A
 Analysis Period (min) 15

Intersection												
Int Delay, s/veh	0.1											
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	0	0	1	2	722	4	1	473	0
Future Vol, veh/h	3	0	0	0	0	1	2	722	4	1	473	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	6	0
Mvmt Flow	3	0	0	0	0	1	2	768	4	1	503	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1280	1281	503	1279	1279	770	503	0	0	772	0	0
Stage 1	505	505	-	774	774	-	-	-	-	-	-	-
Stage 2	775	776	-	505	505	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	144	167	573	144	167	404	1072	-	-	852	-	-
Stage 1	553	544	-	394	411	-	-	-	-	-	-	-
Stage 2	394	410	-	553	544	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	143	166	573	143	166	404	1072	-	-	852	-	-
Mov Cap-2 Maneuver	143	166	-	143	166	-	-	-	-	-	-	-
Stage 1	551	543	-	393	410	-	-	-	-	-	-	-
Stage 2	392	409	-	552	543	-	-	-	-	-	-	-

Approach	SE		NW		NE		SW	
HCM Control Delay, s	30.7		13.9		0		0	
HCM LOS	D		B					

Minor Lane/Major Mvmt	NEL	NET	NERNWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1072	-	-	404	143	852	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.022	0.001	-
HCM Control Delay (s)	8.4	0	-	13.9	30.7	9.2	0
HCM Lane LOS	A	A	-	B	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-



***FIRE HEADQUARTERS
BEDFORD VILLAGE FIRE DISTRICT***

**APPENDIX E
TRAFFIC COUNT DATA**

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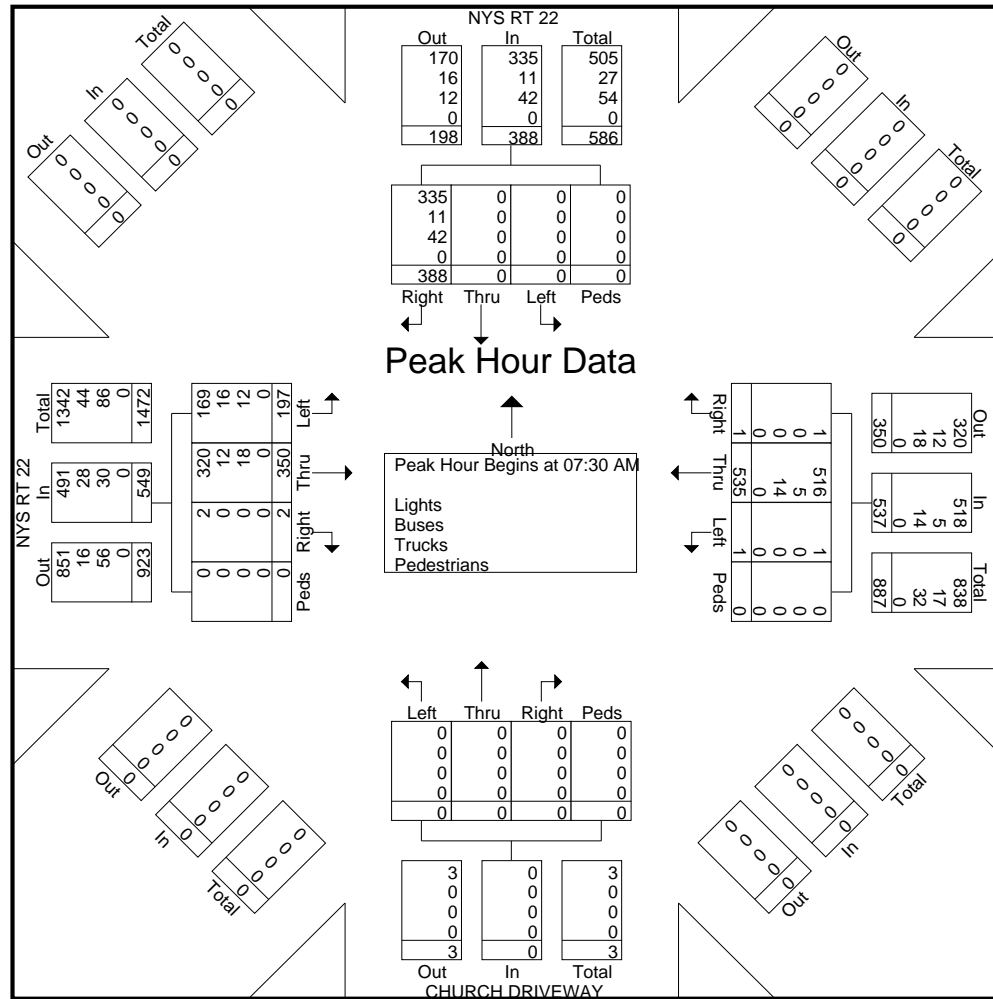
Customer Loyalty Through Client Satisfaction

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Groups Printed- Lights - Buses - Trucks - Pedestrians

Start Time	NYS RT 22 From North					NYS RT 172 From East					CHURCH DRIVEWAY From South					NYS RT 22 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
02:00 PM	46	0	0	0	46	0	68	0	0	68	0	0	0	1	1	2	59	50	0	111	226
02:15 PM	57	0	0	0	57	0	76	0	0	76	0	0	0	0	0	0	83	56	0	139	272
02:30 PM	34	0	0	0	34	0	79	0	0	79	0	0	0	0	0	1	119	75	0	195	308
02:45 PM	52	0	0	0	52	0	73	0	0	73	0	0	0	0	0	0	99	64	0	163	288
Total	189	0	0	0	189	0	296	0	0	296	0	0	0	1	1	3	360	245	0	608	1094
03:00 PM	61	0	0	0	61	0	90	1	0	91	0	0	0	0	0	0	86	75	0	161	313
03:15 PM	70	0	0	0	70	0	111	0	0	111	0	0	0	0	0	0	104	54	0	158	339
03:30 PM	56	0	0	0	56	0	92	0	0	92	0	0	1	0	1	3	111	91	0	205	354
03:45 PM	58	0	0	0	58	0	92	1	0	93	0	0	0	0	0	9	101	79	0	189	340
Total	245	0	0	0	245	0	385	2	0	387	0	0	1	0	1	12	402	299	0	713	1346
04:00 PM	72	0	0	0	72	0	91	0	0	91	0	0	0	0	0	0	86	70	0	156	319
04:15 PM	67	0	0	0	67	0	90	0	0	90	0	0	0	0	0	1	89	96	0	186	343
04:30 PM	58	0	0	0	58	0	101	0	0	101	0	0	0	0	0	1	123	67	0	191	350
04:45 PM	66	0	0	0	66	0	86	0	0	86	0	0	2	0	2	1	114	66	0	181	335
Total	263	0	0	0	263	0	368	0	0	368	0	0	2	0	2	3	412	299	0	714	1347
05:00 PM	55	0	0	0	55	0	84	2	0	86	0	0	3	0	3	6	119	83	0	208	352
05:15 PM	46	0	0	0	46	0	77	0	0	77	0	0	0	0	0	3	133	90	0	226	349
05:30 PM	50	0	0	0	50	0	84	0	0	84	0	0	0	0	0	1	138	86	0	225	359
05:45 PM	32	0	0	0	32	0	71	0	0	71	0	0	0	0	0	0	124	111	0	235	338
Total	183	0	0	0	183	0	316	2	0	318	0	0	3	0	3	10	514	370	0	894	1398
06:00 PM	41	0	1	0	42	0	64	0	0	64	0	0	0	1	1	0	105	80	0	185	292
06:15 PM	51	0	0	0	51	0	70	0	0	70	0	0	0	0	0	1	113	92	0	206	327
06:30 PM	40	0	0	0	40	0	60	0	0	60	0	0	0	0	0	0	93	63	0	156	256
06:45 PM	37	0	0	0	37	0	59	0	0	59	0	0	0	0	0	0	106	63	0	169	265
Total	169	0	1	0	170	0	253	0	0	253	0	0	0	1	1	1	417	298	0	716	1140
Grand Total	1049	0	1	0	1050	0	1618	4	0	1622	0	0	6	2	8	29	2105	1511	0	3645	6325
Apprch %	99.9	0	0.1	0		0	99.8	0.2	0		0	0	75	25		0.8	57.8	41.5	0		
Total %	16.6	0	0	0	16.6	0	25.6	0.1	0	25.6	0	0	0.1	0	0.1	0.5	33.3	23.9	0	57.6	
Lights	972	0	1	0	973	0	1518	4	0	1522	0	0	6	0	6	28	2013	1423	0	3464	5965
% Lights	92.7	0	100	0	92.7	0	93.8	100	0	93.8	0	0	100	0	75	96.6	95.6	94.2	0	95	94.3
Buses	17	0	0	0	17	0	40	0	0	40	0	0	0	0	0	0	31	31	0	62	119
% Buses	1.6	0	0	0	1.6	0	2.5	0	0	2.5	0	0	0	0	0	0	1.5	2.1	0	1.7	1.9
Trucks	60	0	0	0	60	0	60	0	0	60	0	0	0	0	0	1	61	57	0	119	239
% Trucks	5.7	0	0	0	5.7	0	3.7	0	0	3.7	0	0	0	0	0	3.4	2.9	3.8	0	3.3	3.8
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	100	25	0	0	0	0	0	0

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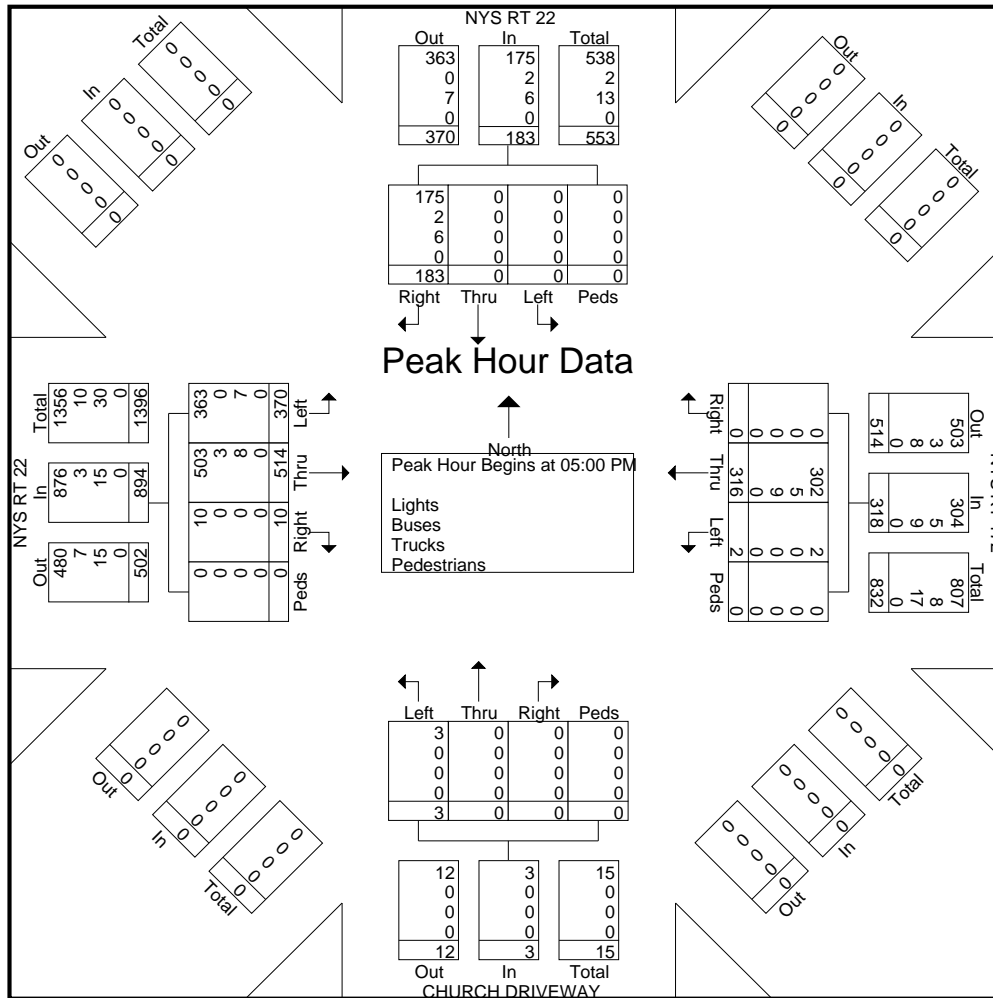
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Groups Printed- Lights - Buses - Trucks - Pedestrians

Start Time	SOUTH BROOK RD From North					NYS ROUTE 22 From East					GREENWICH RD From South					NYS ROUTE 22 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	0	0	0	0	0	155	34	0	189	4	0	12	0	16	2	53	1	0	56	261
07:15 AM	0	0	0	0	0	0	201	43	0	244	9	0	9	0	18	12	77	0	0	89	351
07:30 AM	0	0	0	0	0	0	201	62	0	263	8	0	25	0	33	9	106	0	0	115	411
07:45 AM	0	0	0	1	1	0	158	62	0	220	24	0	25	0	49	27	136	0	0	163	433
Total	0	0	0	1	1	0	715	201	0	916	45	0	71	0	116	50	372	1	0	423	1456
08:00 AM	0	0	0	0	0	0	132	74	0	206	22	0	22	0	44	15	129	0	0	144	394
08:15 AM	0	0	0	0	0	0	181	54	0	235	17	0	13	0	30	15	92	0	0	107	372
08:30 AM	0	0	0	0	0	0	171	38	0	209	24	0	20	0	44	13	87	0	0	100	353
08:45 AM	1	0	0	0	1	0	164	65	0	229	30	0	13	0	43	17	122	0	0	139	412
Total	1	0	0	0	1	0	648	231	0	879	93	0	68	0	161	60	430	0	0	490	1531
09:00 AM	1	0	0	0	1	0	175	55	0	230	19	0	24	0	43	12	87	0	0	99	373
09:15 AM	0	0	0	1	1	0	131	38	0	169	12	0	9	0	21	17	87	0	0	104	295
09:30 AM	1	0	0	1	2	0	131	26	0	157	22	0	11	0	33	16	100	1	0	117	309
09:45 AM	0	0	0	0	0	0	95	26	0	121	8	0	18	0	26	8	97	0	1	106	253
Total	2	0	0	2	4	0	532	145	0	677	61	0	62	0	123	53	371	1	1	426	1230
Grand Total	3	0	0	3	6	0	1895	577	0	2472	199	0	201	0	400	163	1173	2	1	1339	4217
Apprch %	50	0	0	50		0	76.7	23.3	0		49.8	0	50.2	0		12.2	87.6	0.1	0.1		
Total %	0.1	0	0	0.1	0.1	0	44.9	13.7	0	58.6	4.7	0	4.8	0	9.5	3.9	27.8	0	0	31.8	
Lights	3	0	0	0	3	0	1742	498	0	2240	177	0	188	0	365	145	1064	2	0	1211	3819
% Lights	100	0	0	0	50	0	91.9	86.3	0	90.6	88.9	0	93.5	0	91.2	89	90.7	100	0	90.4	90.6
Buses	0	0	0	0	0	0	48	13	0	61	8	0	6	0	14	13	29	0	0	42	117
% Buses	0	0	0	0	0	0	2.5	2.3	0	2.5	4	0	3	0	3.5	8	2.5	0	0	3.1	2.8
Trucks	0	0	0	0	0	0	105	66	0	171	14	0	7	0	21	5	80	0	0	85	277
% Trucks	0	0	0	0	0	0	5.5	11.4	0	6.9	7	0	3.5	0	5.2	3.1	6.8	0	0	6.3	6.6
Pedestrians	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
% Pedestrians	0	0	0	100	50	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.1	0.1

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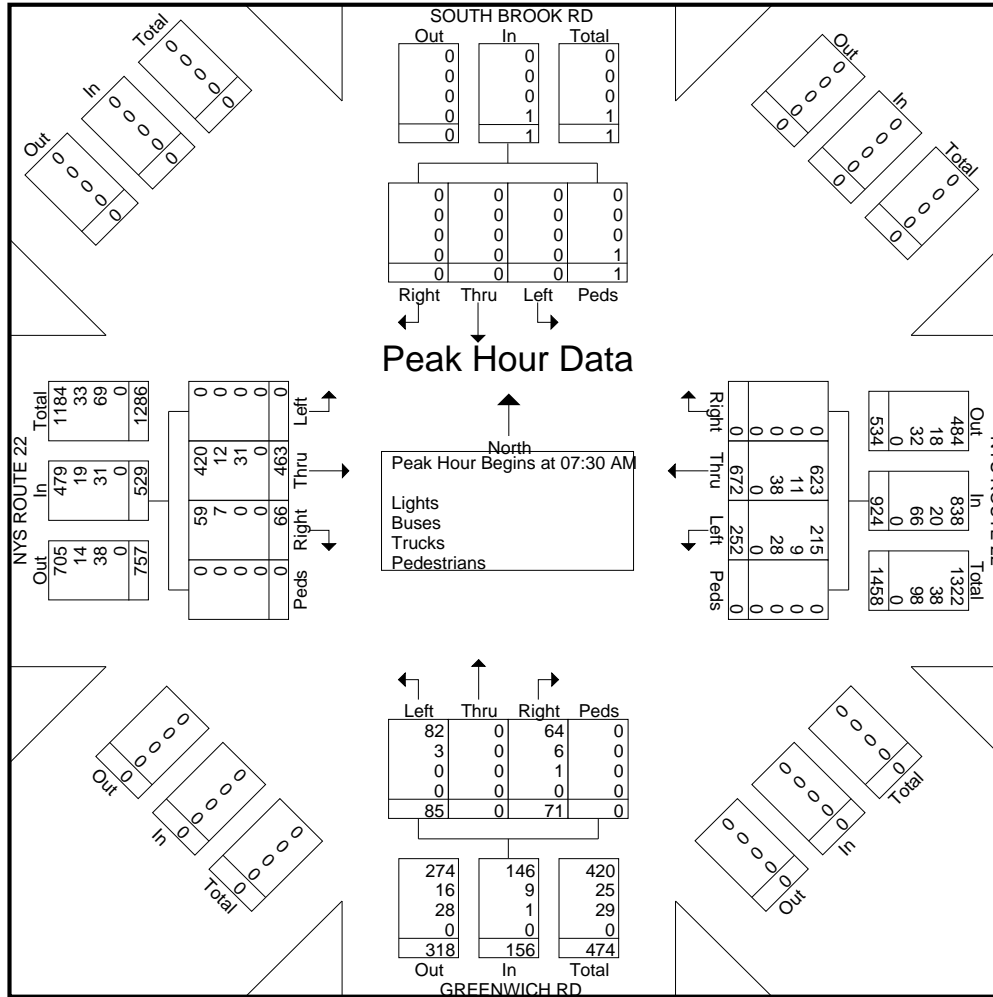
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Groups Printed- Lights - Buses - Trucks - Pedestrians

Start Time	SOUTH BROOK RD From North					NYS ROUTE 22 From East					GREENWICH RD From South					NYS ROUTE 22 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
02:00 PM	0	0	0	0	0	0	91	18	0	109	19	0	9	0	28	12	90	0	1	103	240
02:15 PM	0	0	0	0	0	0	112	17	0	129	31	0	18	0	49	28	107	0	1	136	314
02:30 PM	1	0	0	0	1	0	102	19	0	121	35	0	16	0	51	26	159	0	0	185	358
02:45 PM	0	0	0	0	0	0	101	18	0	119	32	0	19	0	51	15	118	0	0	133	303
Total	1	0	0	0	1	0	406	72	0	478	117	0	62	0	179	81	474	0	2	557	1215
03:00 PM	1	0	0	0	1	1	122	25	0	148	28	1	12	0	41	21	129	1	0	151	341
03:15 PM	0	1	0	1	2	1	138	38	0	177	31	0	17	0	48	9	123	0	1	133	360
03:30 PM	0	0	0	0	0	0	120	27	0	147	36	0	16	0	52	30	156	0	0	186	385
03:45 PM	0	0	0	1	1	0	118	28	0	146	38	0	18	0	56	12	144	0	0	156	359
Total	1	1	0	2	4	2	498	118	0	618	133	1	63	0	197	72	552	1	1	626	1445
04:00 PM	0	0	0	0	0	0	123	30	0	153	29	0	21	0	50	12	118	0	0	130	333
04:15 PM	0	0	0	0	0	0	122	32	0	154	53	0	11	0	64	17	130	0	0	147	365
04:30 PM	0	0	0	2	2	0	128	30	0	158	46	0	18	0	64	13	160	0	0	173	397
04:45 PM	0	0	1	0	1	1	111	35	0	147	44	0	21	0	65	31	118	0	0	149	362
Total	0	0	1	2	3	1	484	127	0	612	172	0	71	0	243	73	526	0	0	599	1457
05:00 PM	1	0	0	1	2	0	117	33	0	150	50	0	25	0	75	18	133	1	2	154	381
05:15 PM	0	0	0	3	3	0	86	27	0	113	61	0	16	0	77	21	167	0	0	188	381
05:30 PM	0	0	0	2	2	0	116	29	0	145	44	0	13	0	57	23	176	1	1	201	405
05:45 PM	2	0	0	1	3	0	79	20	0	99	59	0	17	0	76	13	165	0	1	179	357
Total	3	0	0	7	10	0	398	109	0	507	214	0	71	0	285	75	641	2	4	722	1524
06:00 PM	0	2	0	0	2	0	86	21	0	107	37	0	22	0	59	19	148	2	0	169	337
06:15 PM	0	0	0	1	1	0	96	25	0	121	41	0	18	0	59	13	170	0	0	183	364
06:30 PM	0	0	0	0	0	0	74	25	0	99	42	0	13	0	55	13	106	0	0	119	273
06:45 PM	0	0	0	0	0	0	65	33	0	98	31	0	15	0	46	32	122	1	1	156	300
Total	0	2	0	1	3	0	321	104	0	425	151	0	68	0	219	77	546	3	1	627	1274
Grand Total	5	3	1	12	21	3	2107	530	0	2640	787	1	335	0	1123	378	2739	6	8	3131	6915
Apprch %	23.8	14.3	4.8	57.1		0.1	79.8	20.1	0		70.1	0.1	29.8	0		12.1	87.5	0.2	0.3		
Total %	0.1	0	0	0.2	0.3	0	30.5	7.7	0	38.2	11.4	0	4.8	0	16.2	5.5	39.6	0.1	0.1	45.3	
Lights	4	3	1	0	8	2	1948	498	0	2448	736	0	314	0	1050	360	2609	6	0	2975	6481
% Lights	80	100	100	0	38.1	66.7	92.5	94	0	92.7	93.5	0	93.7	0	93.5	95.2	95.3	100	0	95	93.7
Buses	0	0	0	0	0	0	57	10	0	67	5	0	7	0	12	11	54	0	0	65	144
% Buses	0	0	0	0	0	0	2.7	1.9	0	2.5	0.6	0	2.1	0	1.1	2.9	2	0	0	2.1	2.1
Trucks	1	0	0	0	1	1	102	22	0	125	46	1	14	0	61	7	76	0	0	83	270
% Trucks	20	0	0	0	4.8	33.3	4.8	4.2	0	4.7	5.8	100	4.2	0	5.4	1.9	2.8	0	0	2.7	3.9
Pedestrians	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	20
% Pedestrians	0	0	0	100	57.1	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.3	0.3

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Start Time	SOUTH BROOK RD From North					NYS ROUTE 22 From East					GREENWICH RD From South					NYS ROUTE 22 From West					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 05:00 PM																						
05:00 PM	1	0	0	1	2	0	117	33	0	150	50	0	25	0	75	18	133	1	2	154	381	
05:15 PM	0	0	0	3	3	0	86	27	0	113	61	0	16	0	77	21	167	0	0	188	381	
05:30 PM	0	0	0	2	2	0	116	29	0	145	44	0	13	0	57	23	176	1	1	201	405	
05:45 PM	2	0	0	1	3	0	79	20	0	99	59	0	17	0	76	13	165	0	1	179	357	
Total Volume	3	0	0	7	10	0	398	109	0	507	214	0	71	0	285	75	641	2	4	722	1524	
% App. Total	30	0	0	70		0	78.5	21.5	0		75.1	0	24.9	0		10.4	88.8	0.3	0.6			
PHF	.375	.000	.000	.583	.833	.000	.850	.826	.000	.845	.877	.000	.710	.000	.925	.815	.911	.500	.500	.898	.941	
Lights	3	0	0	0	3	0	372	107	0	479	209	0	67	0	276	74	631	2	0	707	1465	
% Lights	100	0	0	0	30.0	0	93.5	98.2	0	94.5	97.7	0	94.4	0	96.8	98.7	98.4	100	0	97.9	96.1	
Buses	0	0	0	0	0	0	8	1	0	9	1	0	2	0	3	1	4	0	0	5	17	
% Buses	0	0	0	0	0	0	2.0	0.9	0	1.8	0.5	0	2.8	0	1.1	1.3	0.6	0	0	0.7	1.1	
Trucks	0	0	0	0	0	0	18	1	0	19	4	0	2	0	6	0	6	0	0	6	31	
% Trucks	0	0	0	0	0	0	4.5	0.9	0	3.7	1.9	0	2.8	0	2.1	0	0.9	0	0	0.8	2.0	
Pedestrians	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	11	
% Pedestrians	0	0	0	100	70.0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0.6	0.7	

Maser Consulting

400 Columbus Avenue - Suite 180E

Valhalla, NY 10595

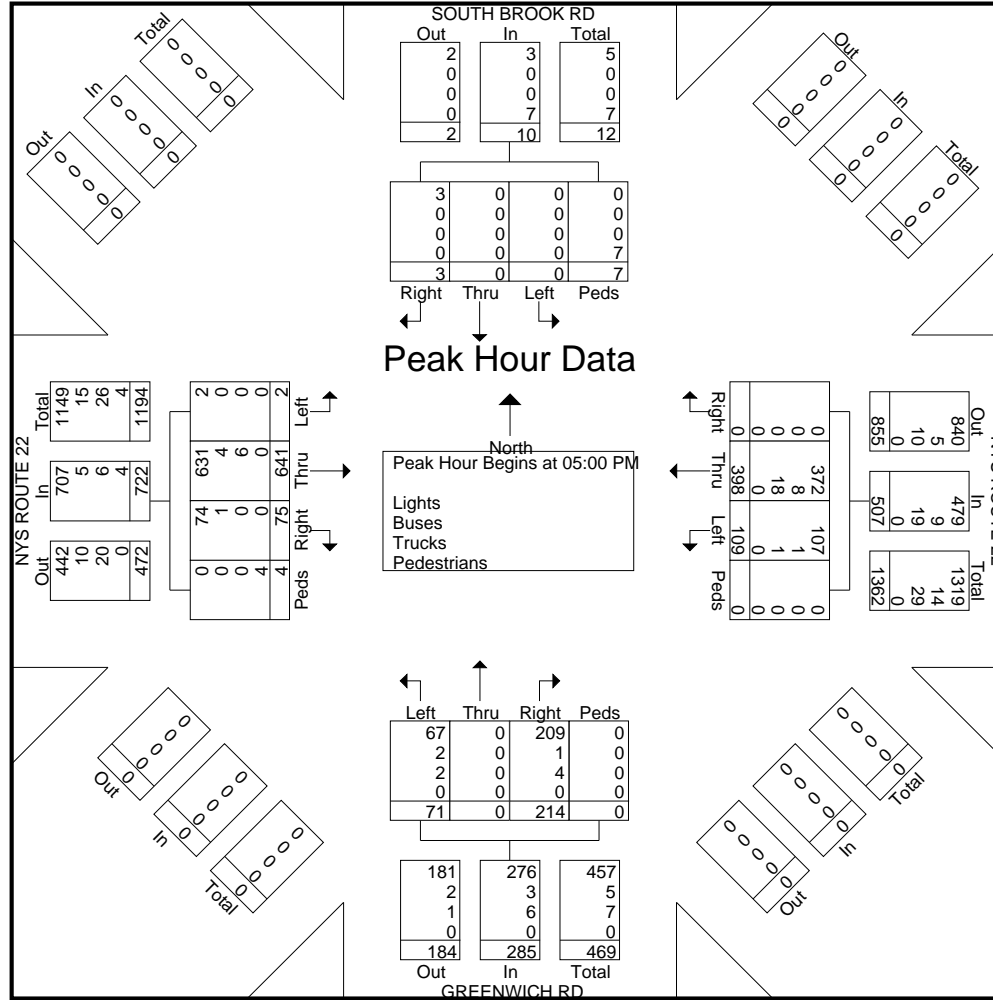
Customer Loyalty through Client Satisfaction

File Name : NYS_ROUTE_22_AT_SOUTH_BROOK_RD_GREENWICH_RD_519641_05-01-2018

Site Code :

Start Date : 5/1/2018

Page No : 3



Maser Consulting

11 Bradhurst Avenue
Hawthorne, NY 1052

Customer Loyalty through Client Satisfaction

File Name : 9-ROUTE_22_AT_LINCOLN_AVE-PM_234214_05-20-2015

Site Code :

Start Date : 5/20/2015

Page No : 1

Groups Printed- Lights - Buses - Trucks

Start Time	Southbound St. From North						Westbound St. From East						Northbound St. From South						From West								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total	
	04:00 PM	0	157	0	0	157	0	0	0	0	0	1	147	0	0	148	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	145	1	0	146	0	0	0	0	0	1	164	0	0	165	0	0	0	0	0	0	0	0	0	0	0	311
04:30 PM	0	154	0	0	154	0	0	0	0	0	0	157	0	0	157	0	0	0	0	0	0	0	0	0	0	0	311
04:45 PM	0	135	0	0	135	1	0	0	0	1	2	166	0	0	168	0	0	0	0	0	0	0	0	0	0	0	304
Total	0	591	1	0	592	1	0	0	0	1	4	634	0	0	638	0	0	0	0	0	0	0	0	0	0	0	1231
05:00 PM	0	136	0	0	136	1	0	0	0	1	1	158	0	0	159	0	0	0	0	0	0	0	0	0	0	0	296
05:15 PM	0	146	0	0	146	1	0	0	0	1	0	152	0	0	152	0	0	0	0	0	0	0	0	0	0	0	299
05:30 PM	0	162	1	0	163	0	0	0	0	0	0	151	0	0	151	0	0	0	0	0	0	0	0	0	0	0	314
05:45 PM	0	167	0	0	167	0	0	1	0	1	0	154	0	0	154	0	0	0	0	0	0	0	0	0	0	0	322
Total	0	611	1	0	612	2	0	1	0	3	1	615	0	0	616	0	0	0	0	0	0	0	0	0	0	0	1231
Grand Total	0	1202	2	0	1204	3	0	1	0	4	5	1249	0	0	1254	0	0	0	0	0	0	0	0	0	0	0	2462
Approch %	0	99.8	0.2	0	0	75	0	25	0	0	0.4	99.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	48.8	0.1	0	48.9	0.1	0	0	0	0.2	0.2	50.7	0	0	50.9	0	0	0	0	0	0	0	0	0	0	0	0
% Lights	0	1137	2	0	1139	3	0	1	0	4	5	1211	0	0	1216	0	0	0	0	0	0	0	0	0	0	0	2359
% Buses	0	94.6	100	0	94.6	100	0	100	0	100	100	97	0	0	97	0	0	0	0	0	0	0	0	0	0	0	95.8
% Trucks	0	30	0	0	30	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	0	0	0	0	0	45
% Trucks	0	2.5	0	0	2.5	0	0	0	0	0	0	1.2	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0	1.8
% Trucks	0	35	0	0	35	0	0	0	0	0	0	23	0	0	23	0	0	0	0	0	0	0	0	0	0	0	58
% Trucks	0	2.9	0	0	2.9	0	0	0	0	0	0	1.8	0	0	1.8	0	0	0	0	0	0	0	0	0	0	0	2.4

Start Time	Southbound St. From North						Westbound St. From East						Northbound St. From South						From West								
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total	
	04:00 PM	0	157	0	0	157	0	0	0	0	0	1	147	0	0	148	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	145	1	0	146	0	0	0	0	0	1	164	0	0	165	0	0	0	0	0	0	0	0	0	0	0	311
04:30 PM	0	154	0	0	154	0	0	0	0	0	0	157	0	0	157	0	0	0	0	0	0	0	0	0	0	0	311
04:45 PM	0	135	0	0	135	1	0	0	0	1	2	166	0	0	168	0	0	0	0	0	0	0	0	0	0	0	304
Total	0	591	1	0	592	1	0	0	0	1	4	634	0	0	638	0	0	0	0	0	0	0	0	0	0	0	1231
% App. Total	0.000	.941	.250	.000	.943	.250	.000	.000	.000	.250	.500	.955	.000	.000	.949	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.990	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:00 PM



***FIRE HEADQUARTERS
BEDFORD VILLAGE FIRE DISTRICT***

APPENDIX F

**EMERGENCY PRE-EMPTION TRAFFIC SIGNAL
WARRANT ANALYSIS**

TABLE NO. 2

EMERGENCY- VEHICLE TRAFFIC CONTROL SIGNAL

Time	Average Weekday Volume ⁽¹⁾	Emergency Calls ⁽²⁾
12:00 AM	55	29
01:00 AM	27	18
02:00 AM	16	23
03:00 AM	13	17
04:00 AM	37	12
05:00 AM	113	17
06:00 AM	358	28
07:00 AM	789	49
08:00 AM	1061	69
09:00 AM	911	75
10:00 AM	805	80
11:00 AM	830	75
12:00 PM	813	89
01:00 PM	778	59
02:00 PM	852	92
03:00 PM	909	60
04:00 PM	989	70
05:00 PM	1081	83
06:00 PM	895	73
07:00 PM	596	63
08:00 PM	443	65
09:00 PM	328	45
10:00 PM	205	37
11:00 PM	113	29
TOTAL NUMBER OF EMERGENCY CALLS WHEN VOLUME IS >750 IN A GIVEN HOUR	874	

NUMBER OF CALLS > 200: WARRANT SATISFIED ⁽³⁾

(1) - BASED ON NYSDOT HISTORICAL AADT VOLUMES

(2) - BASED ON EMERGENCY RESPONSE RECORDS FROM THE BEDFORD FIRE DEPARTMENT

(3) - BASED ON NEW YORK STATE SUPPLEMENT TO MUTCD - 2009 EDITION - SECTION 4G.01.00F

Alarms by Time of Day

Bedford Village Fire District

Date Range: From 01/01/2016 to 12/31/2017

Fixed Property:

Time of Day	Call Count
00:00 - 00:59	29
01:00 - 01:59	18
02:00 - 02:59	23
03:00 - 03:59	17
04:00 - 04:59	12
05:00 - 05:59	17
06:00 - 06:59	28
07:00 - 07:59	49
08:00 - 08:59	69
09:00 - 09:59	75
10:00 - 10:59	80
11:00 - 11:59	75
12:00 - 12:59	89
13:00 - 13:59	59
14:00 - 14:59	92
15:00 - 15:59	60
16:00 - 16:59	70
17:00 - 17:59	83
18:00 - 18:59	73
19:00 - 19:59	63
20:00 - 20:59	65
21:00 - 21:59	45
22:00 - 22:59	37
23:00 - 23:59	29
Total Alarms	1,257

Alarms by Time of Day

Bedford Village Fire District

Date Range: From 01/01/2016 to 12/31/2016

Fixed Property:

Time of Day	Call Count
00:00 - 00:59	14
01:00 - 01:59	8
02:00 - 02:59	13
03:00 - 03:59	10
04:00 - 04:59	8
05:00 - 05:59	9
06:00 - 06:59	16
07:00 - 07:59	23
08:00 - 08:59	32
09:00 - 09:59	39
10:00 - 10:59	37
11:00 - 11:59	38
12:00 - 12:59	39
13:00 - 13:59	34
14:00 - 14:59	50
15:00 - 15:59	27
16:00 - 16:59	39
17:00 - 17:59	53
18:00 - 18:59	34
19:00 - 19:59	35
20:00 - 20:59	29
21:00 - 21:59	18
22:00 - 22:59	20
23:00 - 23:59	11
Total Alarms	636

Alarms by Time of Day

Bedford Village Fire District

Date Range: From 01/01/2017 to 12/31/2017

Fixed Property:

Time of Day	Call Count
00:00 - 00:59	15
01:00 - 01:59	10
02:00 - 02:59	10
03:00 - 03:59	7
04:00 - 04:59	4
05:00 - 05:59	8
06:00 - 06:59	12
07:00 - 07:59	26
08:00 - 08:59	37
09:00 - 09:59	36
10:00 - 10:59	43
11:00 - 11:59	37
12:00 - 12:59	50
13:00 - 13:59	25
14:00 - 14:59	42
15:00 - 15:59	33
16:00 - 16:59	31
17:00 - 17:59	30
18:00 - 18:59	39
19:00 - 19:59	28
20:00 - 20:59	36
21:00 - 21:59	27
22:00 - 22:59	17
23:00 - 23:59	18
Total Alarms	621

New York State Department of Transportation Roadway Traffic Count Hourly Report

STATION: 870148

ROUTE/ROAD: NY22	FROM: START 22/172 OLAP	TO: END 22/172 OLAP	REGION-COUNTY: 8-WESTCHESTER
FED DIR CODE: 1, 5	REF. MARKER: 22 87024132	FUNC. CLASS: 14 - U Principal Arterial - Other	MUNI: Bedford-Town-0057
ST DIR CODE: 7	END MILEPOST: 26.45	FACTOR GROUP: 30	BIN:
DOT ID: 100171	LANES BY DIR: 1 North 1 South	CC STN:	RR CROSSING:
BEGIN DATE: 8/6/2014	WEEK OF YEAR: 32	ADDL DATA: CLS SPD	HPMS SAMPLE:
NOTES 1: SB TRAVEL LANE	PLACEMENT: 573 FT S OF JEFFERSON LN	JURISDICTION: 01-NYS DOT	1 WAY CODE:
NOTES 2:			COUNT TYPE: Vehicle
TAKEN BY: TST-AJW	PROCESSED BY: DOT-CEL	BATCH ID: DOT-R8WW32d C	SPEED LIMIT: 40

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH COUNT	HIGH HOUR
8/06, Wed																					473	357	228	118	1176		
8/07, Thu	72	24	18	14	46	105	396	820	1103	989	879	866	920	866	932	1008	1152	1238	1021	702	504	384	229	144	14432	1238	17-18
8/08, Fri	60	35	19	9	31	100	351	766	1067	956	800	872	907	835	987	1031	1149	1138	906	645	452	365	222	172	13875	1149	16-17
8/09, Sat	90	49	22	17	30	57	134	354	527	674	803	894	886	873	767	759	811	667	638	486	471	325	283	193	10810	894	11-12
8/10, Sun	105	55	22	18	21	38	108	223	359	498	641	747	815	659	682	616	629	642	608	526	423	276	179	104	8994	815	12-13
8/11, Mon	40	19	16	13	26	119	354	823	1089	937	821	831	802	785	809	879	1009	1065	871	546	412	281	157	81	12785	1089	08-09
8/12, Tue	34	21	17	11	40	133	369	846	1054	876	821	808	819	786	879	912	862	1016	859	557	383	290	206	108	12707	1054	08-09
8/13, Wed	52	26	11	16	29	112	321	689	991	796	706	772	709	674	788	838	931	1003	830	579					10873		
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)																								AWDT			
	55	27	16	13	37	113	358	789	1061	911	805	830	813	778	852	909	989	1081	895	596	443	328	205	113	13013		

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT				
				Roadway High Hour	% of day	North High Hour	% of day	South High Hour	% of day	Roadway	North	South
7	168	4	102	1081	8.3	627	9.7	649	9.9	11938	5941	5997

FACTOR

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axl
8	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

New York State Department of Transportation

STATION: 870148

NB Traffic Count Hourly Report

ROUTE/ROAD: NY22	FROM: START 22/172 OLAP	TO: END 22/172 OLAP	REGION-COUNTY: 8-WESTCHESTER
FED DIR CODE: 1	REF. MARKER: 22 87024132	FUNC. CLASS: 14 - U Principal Arterial - Other	MUNI: Bedford-Town-0057
ST DIR CODE: 7	END MILEPOST: 26.45	FACTOR GROUP: 30	BIN:
DOT ID: 100171	LANES BY DIR: 1 North	CC STN:	RR CROSSING:
BEGIN DATE: 8/6/2014	WEEK OF YEAR: 32	ADDL DATA: CLS SPD	HPMS SAMPLE:
NOTES 1: SB TRAVEL LANE	PLACEMENT: 573 FT S OF JEFFERSON LN	JURISDICTION: 01-NYS DOT	1 WAY CODE:
NOTES 2:			COUNT TYPE: Vehicle
TAKEN BY: TST-AJW	PROCESSED BY: DOT-CEL	BATCH ID: DOT-R8WW32d C	SPEED LIMIT: 40

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH COUNT	HIGH HOUR
8/06, Wed																					298	242	140	78	758		
8/07, Thu	56	14	10	7	12	33	141	341	437	435	385	425	434	415	419	472	591	702	555	418	324	252	163	88	7129	702	17-18
8/08, Fri	41	22	11	6	12	36	121	327	407	425	393	394	437	430	517	532	635	653	503	373	270	217	132	112	7006	653	17-18
8/09, Sat	53	29	11	9	10	19	54	158	227	277	359	447	450	463	407	361	418	337	320	252	246	188	157	108	5360	463	13-14
8/10, Sun	54	25	15	9	8	17	40	95	153	207	287	367	402	323	367	316	306	320	301	291	229	153	106	69	4460	402	12-13
8/11, Mon	25	13	12	8	13	34	124	330	422	410	359	411	412	363	408	469	524	610	524	328	250	191	100	45	6385	610	17-18
8/12, Tue	21	13	13	6	13	36	126	351	439	371	365	371	367	382	420	460	452	609	511	357	243	190	138	66	6320	609	17-18
8/13, Wed	31	21	7	7	12	30	106	245	356	338	308	354	316	325	391	439	499	585	499	356					5225		
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)																								AWDT			
	37	18	10	7	12	34	124	319	412	396	362	391	382	371	410	460	517	627	522	365	279	219	135	69	6476		

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT				
				Roadway High Hour	% of day	North High Hour	% of day	South High Hour	% of day	Roadway	North	South
7	168	4	102	1081	8.3	627	9.7	649	9.9	11938	5941	5997

FACTOR

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axl
8	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

New York State Department of Transportation

STATION: 870148

SB Traffic Count Hourly Report

ROUTE/ROAD: NY22	FROM: START 22/172 OLAP	TO: END 22/172 OLAP	REGION-COUNTY: 8-WESTCHESTER
FED DIR CODE: 5	REF. MARKER: 22 87024132	FUNC. CLASS: 14 - U Principal Arterial - Other	MUNI: Bedford-Town-0057
ST DIR CODE: 7	END MILEPOST: 26.45	FACTOR GROUP: 30	BIN:
DOT ID: 100171	LANES BY DIR: 1 South	CC STN:	RR CROSSING:
BEGIN DATE: 8/6/2014	WEEK OF YEAR: 32	ADDL DATA: CLS SPD	HPMS SAMPLE:
NOTES 1: SB TRAVEL LANE	PLACEMENT: 573 FT S OF JEFFERSON LN	JURISDICTION: 01-NYS DOT	1 WAY CODE:
NOTES 2:			COUNT TYPE: Vehicle
TAKEN BY: TST-AJW	PROCESSED BY: DOT-CEL	BATCH ID: DOT-R8WW32d C	SPEED LIMIT: 40

DATE	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	DAILY TOTAL	HIGH COUNT	HIGH HOUR	
8/06, Wed																						175	115	88	40	418		
8/07, Thu	16	10	8	7	34	72	255	479	666	554	494	441	486	451	513	536	561	536	466	284	180	132	66	56	7303	666	08-09	
8/08, Fri	19	13	8	3	19	64	230	439	660	531	407	478	470	405	470	499	514	485	403	272	182	148	90	60	6869	660	08-09	
8/09, Sat	37	20	11	8	20	38	80	196	300	397	444	447	436	410	360	398	393	330	318	234	225	137	126	85	5450	447	11-12	
8/10, Sun	51	30	7	9	13	21	68	128	206	291	354	380	413	336	315	300	323	322	307	235	194	123	73	35	4534	413	12-13	
8/11, Mon	15	6	4	5	13	85	230	493	667	527	462	420	390	422	401	410	485	455	347	218	162	90	57	36	6400	667	08-09	
8/12, Tue	13	8	4	5	27	97	243	495	615	505	456	437	452	404	459	452	410	407	348	200	140	100	68	42	6387	615	08-09	
8/13, Wed	21	5	4	9	17	82	215	444	635	458	398	418	393	349	397	399	432	418	331	223						5648		
AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6 AM to Fri Noon)																								AWDT				
	17	9	6	6	24	79	235	470	649	515	443	439	430	407	443	449	472	454	373	231	164	109	70	44	6537			

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY				ESTIMATED AADT				
				Roadway High Hour	% of day	North High Hour	% of day	South High Hour	% of day	Roadway	North	South
7	168	4	102	1081	8.3	627	9.7	649	9.9	11938	5941	5997

FACTOR

Month	Seasonal	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Axl
8	1.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

New York State Department of Transportation

Roadway Speed Count Average Weekday Report

STATION: 870148

ROUTE/ROAD: NY22

FED DIR CODE: 1, 5

ST DIR CODE: 7

DOT ID: 100171

BEGIN DATE: 08/06/2014

TAKEN BY: TST-AJW

FROM: START 22/172 OLAP

REF. MARKER:

END MILEPOST: 26.45

LANES BY DIR: 1 North 1 South

PLACEMENT: 573 FT S OF JEFFERSON LN

PROCESSED BY: DOT-CEL

TO: END 22/172 OLAP

FUNC. CLASS: 14 - U Principal Arterial - Other

FACTOR GROUP: 30

JURISDICTION: 01-NYS DOT

1 WAY CODE:

BATCH ID: DOT-R8WW32d C

REGION-COUNTY: 8-WESTCHESTER

MUNI: Bedford-Town-0057

BIN:

RR CROSSING:

HPMS SAMPLE:

SPEED LIMIT: 40

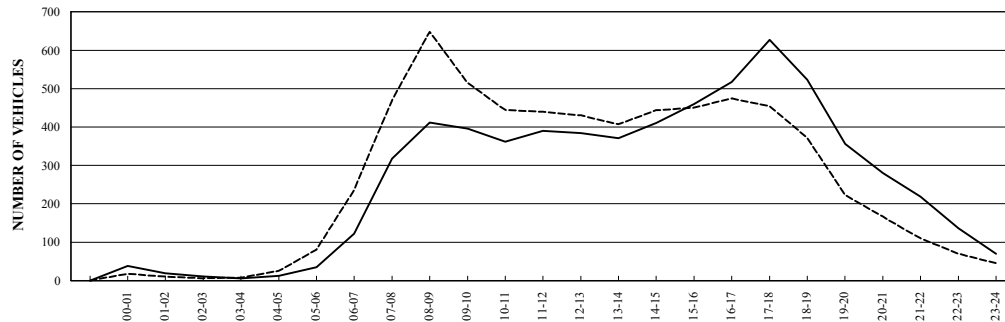
Hour	00-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-149	Total	% > 55	% > 60	% > 65	% > 70	% > 75	Avg	50th%	85th%
00-01	0	0	1	6	15	20	9	3	1	0	0	0	0	0	0	55	1.80	0.00	0.00	0.00	0.00	41.4	41.4	47.6
01-02	0	0	2	4	11	7	3	1	0	0	0	0	0	0	0	28	0.00	0.00	0.00	0.00	0.00	38.9	38.6	44.9
02-03	0	0	0	3	6	5	1	1	0	0	0	0	0	0	0	16	0.00	0.00	0.00	0.00	0.00	39.7	39.2	44.6
03-04	0	0	0	2	5	3	1	1	0	0	0	0	0	0	0	12	0.00	0.00	0.00	0.00	0.00	40.0	39.0	46.0
04-05	0	1	1	6	12	11	5	2	0	0	0	0	0	0	0	38	0.00	0.00	0.00	0.00	0.00	39.6	39.6	46.3
05-06	0	1	3	9	31	39	24	5	1	0	0	0	0	0	0	113	0.90	0.00	0.00	0.00	0.00	41.4	41.6	47.7
06-07	3	2	9	24	104	137	64	13	1	0	0	0	0	0	0	357	0.30	0.00	0.00	0.00	0.00	40.9	41.3	46.9
07-08	4	8	42	152	299	227	50	6	0	0	0	0	0	0	0	788	0.00	0.00	0.00	0.00	0.00	37.9	38.1	43.6
08-09	13	19	94	283	428	192	29	3	0	0	0	0	0	0	0	1061	0.00	0.00	0.00	0.00	0.00	35.9	36.4	41.7
09-10	12	21	80	254	351	162	28	2	0	0	0	0	0	0	0	910	0.00	0.00	0.00	0.00	0.00	35.7	36.3	41.7
10-11	4	14	68	215	326	155	20	3	0	0	0	0	0	0	0	805	0.00	0.00	0.00	0.00	0.00	36.2	36.6	41.8
11-12	6	19	74	239	334	133	21	2	1	0	0	0	0	0	0	829	0.10	0.00	0.00	0.00	0.00	35.7	36.1	41.2
12-13	20	23	69	205	319	145	28	3	1	0	0	0	0	0	0	813	0.10	0.00	0.00	0.00	0.00	35.6	36.4	41.9
13-14	3	17	60	215	310	144	27	2	0	0	0	0	0	0	0	778	0.00	0.00	0.00	0.00	0.00	36.2	36.5	42.0
14-15	5	17	69	228	340	165	27	1	1	0	0	0	0	0	0	853	0.10	0.00	0.00	0.00	0.00	36.2	36.6	42.0
15-16	5	15	67	219	377	189	35	2	0	0	0	0	0	0	0	909	0.00	0.00	0.00	0.00	0.00	36.6	37.0	42.4
16-17	4	16	70	253	419	200	25	2	0	0	0	0	0	0	0	989	0.00	0.00	0.00	0.00	0.00	36.5	36.8	42.0
17-18	7	19	96	276	431	218	30	4	0	0	0	0	0	0	0	1081	0.00	0.00	0.00	0.00	0.00	36.2	36.7	42.1
18-19	7	24	80	218	353	181	30	2	0	0	0	0	0	0	0	895	0.00	0.00	0.00	0.00	0.00	36.2	36.7	42.2
19-20	13	14	54	132	216	125	23	2	0	0	0	0	0	0	0	579	0.00	0.00	0.00	0.00	0.00	36.0	36.8	42.5
20-21	3	10	40	113	173	87	16	1	0	1	0	0	0	0	0	444	0.20	0.20	0.00	0.00	0.00	36.2	36.6	42.2
21-22	3	6	17	73	136	78	13	2	0	0	0	0	0	0	0	328	0.00	0.00	0.00	0.00	0.00	37.0	37.4	42.8
22-23	1	2	6	29	91	55	17	3	1	0	0	0	0	0	0	205	0.50	0.00	0.00	0.00	0.00	38.7	38.5	44.1
23-24	1	1	3	10	39	42	14	3	1	1	0	0	0	0	0	115	1.70	0.90	0.00	0.00	0.00	40.3	40.4	45.6
Avg Daily Total	114	249	1005	3168	5126	2720	540	69	8	2	0	0	0	0	0	13001	0.10	0.00	0.00	0.00	0.00	36.5	36.9	42.6
Percent	0.9	1.9	7.7	24.4	39.4	20.9	4.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0									
Cum Percent	0.9	2.8	10.5	34.9	74.3	95.2	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0									
Average Hour	5	10	42	132	214	113	23	3	0	0	0	0	0	0	0	542								

Direction	Avg.Speed	50th % Speed	85th % Speed
North	36.3	36.7	42.3
South	36.7	37.1	42.8

Peak Hour Data

Direction	Hour	Count	2-way	Hour	Count
North	17-18	627	A.M.	08-09	1061
South	08-09	648	P.M.	17-18	1081

TRAFFIC FLOW BY DIRECTION



—North - - -South

New York State Department of Transportation

Northbound Speed Count Average Weekday Report

STATION: 870148

ROUTE/ROAD: NY22

FED DIR CODE: 1

ST DIR CODE: 7

DOT ID: 100171

BEGIN DATE: 08/06/2014

TAKEN BY: TST-AJW

FROM: START 22/172 OLAP

REF. MARKER:

END MILEPOST: 26.45

LANES BY DIR: 1 North

PLACEMENT: 573 FT S OF JEFFERSON LN

PROCESSED BY: DOT-CEL

TO: END 22/172 OLAP

FUNC. CLASS: 14 - U Principal Arterial - Other

FACTOR GROUP: 30

JURISDICTION: 01-NYS DOT

1 WAY CODE:

BATCH ID: DOT-R8WW32d C

REGION-COUNTY: 8-WESTCHESTER

MUNI: Bedford-Town-0057

BIN:

RR CROSSING:

HPMS SAMPLE:

SPEED LIMIT: 40

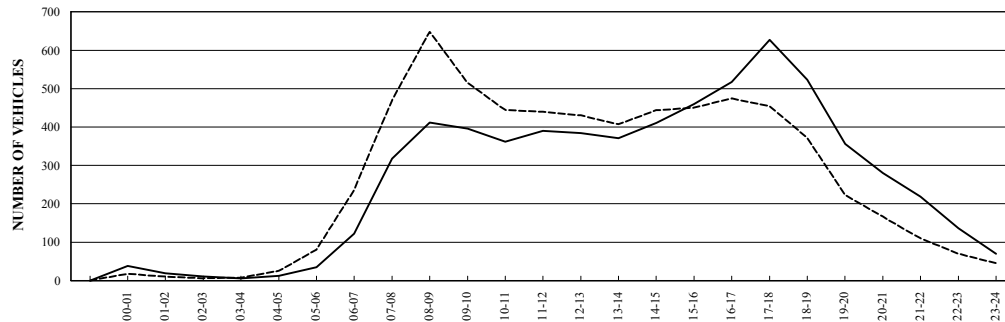
Hour	00-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-149	Total	% > 55	% > 60	% > 65	% > 70	% > 75	Avg	50th%	85th%
00-01	0	0	1	4	11	14	6	2	0	0	0	0	0	0	0	38	0.00	0.00	0.00	0.00	0.00	40.9	41.1	46.9
01-02	0	0	1	2	8	5	2	1	0	0	0	0	0	0	0	19	0.00	0.00	0.00	0.00	0.00	39.6	39.1	45.4
02-03	0	0	0	2	4	3	1	1	0	0	0	0	0	0	0	11	0.00	0.00	0.00	0.00	0.00	40.2	39.4	46.8
03-04	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	6	0.00	0.00	0.00	0.00	0.00	36.7	36.7	40.5
04-05	0	0	0	4	5	2	1	0	0	0	0	0	0	0	0	12	0.00	0.00	0.00	0.00	0.00	37.5	37.0	43.0
05-06	0	0	2	4	10	10	5	3	1	0	0	0	0	0	0	35	2.90	0.00	0.00	0.00	0.00	41.1	40.8	48.8
06-07	1	0	2	14	41	42	18	4	0	0	0	0	0	0	0	122	0.00	0.00	0.00	0.00	0.00	40.2	40.4	46.0
07-08	2	3	20	72	118	81	20	2	0	0	0	0	0	0	0	318	0.00	0.00	0.00	0.00	0.00	37.4	37.6	43.4
08-09	4	9	38	111	160	74	14	2	0	0	0	0	0	0	0	412	0.00	0.00	0.00	0.00	0.00	35.9	36.4	41.9
09-10	4	13	37	110	146	72	13	1	0	0	0	0	0	0	0	396	0.00	0.00	0.00	0.00	0.00	35.7	36.2	41.8
10-11	2	9	36	95	145	66	8	1	0	0	0	0	0	0	0	362	0.00	0.00	0.00	0.00	0.00	35.8	36.3	41.6
11-12	2	11	41	111	157	58	9	1	0	0	0	0	0	0	0	390	0.00	0.00	0.00	0.00	0.00	35.5	36.0	40.8
12-13	1	10	39	97	153	68	13	2	1	0	0	0	0	0	0	384	0.30	0.00	0.00	0.00	0.00	36.1	36.5	41.9
13-14	2	10	31	103	150	62	12	1	0	0	0	0	0	0	0	371	0.00	0.00	0.00	0.00	0.00	35.9	36.3	41.6
14-15	1	8	40	109	154	84	15	0	0	0	0	0	0	0	0	411	0.00	0.00	0.00	0.00	0.00	36.2	36.5	42.2
15-16	1	6	32	109	193	97	21	1	0	0	0	0	0	0	0	460	0.00	0.00	0.00	0.00	0.00	36.9	37.1	42.6
16-17	2	7	36	133	218	107	14	0	0	0	0	0	0	0	0	517	0.00	0.00	0.00	0.00	0.00	36.5	36.8	42.0
17-18	1	10	58	179	250	113	14	2	0	0	0	0	0	0	0	627	0.00	0.00	0.00	0.00	0.00	36.0	36.3	41.5
18-19	2	15	50	132	209	99	15	1	0	0	0	0	0	0	0	523	0.00	0.00	0.00	0.00	0.00	36.0	36.5	41.8
19-20	10	10	38	85	130	70	12	1	0	0	0	0	0	0	0	356	0.00	0.00	0.00	0.00	0.00	35.4	36.3	42.1
20-21	2	9	25	75	113	49	6	0	0	1	0	0	0	0	0	280	0.40	0.40	0.00	0.00	0.00	35.8	36.3	41.4
21-22	2	5	14	56	86	49	6	1	0	0	0	0	0	0	0	219	0.00	0.00	0.00	0.00	0.00	36.4	36.9	42.4
22-23	0	2	5	21	64	34	8	2	0	0	0	0	0	0	0	136	0.00	0.00	0.00	0.00	0.00	38.2	38.1	43.5
23-24	1	1	2	6	27	23	9	1	0	0	0	0	0	0	0	70	0.00	0.00	0.00	0.00	0.00	39.3	39.6	44.9
Avg Daily Total	40	138	548	1636	2555	1283	242	30	2	1	0	0	0	0	0	6475	0.00	0.00	0.00	0.00	0.00	36.3	36.7	42.3
Percent	0.6	2.1	8.5	25.3	39.5	19.8	3.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0									
Cum Percent	0.6	2.8	11.2	36.5	75.9	95.8	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0									
Average Hour	2	6	23	68	106	53	10	1	0	0	0	0	0	0	0	270								

Direction	Avg.Speed	50th % Speed	85th % Speed
North	36.3	36.7	42.3
South	36.7	37.1	42.8

Peak Hour Data

Direction	Hour	Count	2-way	Hour	Count
North	17-18	627	A.M.	08-09	1061
South	08-09	648	P.M.	17-18	1081

TRAFFIC FLOW BY DIRECTION



—North - - - South

New York State Department of Transportation

Southbound Speed Count Average Weekday Report

STATION: 870148

ROUTE/ROAD: NY22

FED DIR CODE: 5

ST DIR CODE: 7

DOT ID: 100171

BEGIN DATE: 08/06/2014

TAKEN BY: TST-AJW

FROM: START 22/172 OLAP

REF. MARKER:

END MILEPOST: 26.45

LANES BY DIR: 1 South

PLACEMENT: 573 FT S OF JEFFERSON LN

PROCESSED BY: DOT-CEL

TO: END 22/172 OLAP

FUNC. CLASS: 14 - U Principal Arterial - Other

FACTOR GROUP: 30

JURISDICTION: 01-NYS DOT

1 WAY CODE:

BATCH ID: DOT-R8WW32d C

REGION-COUNTY: 8-WESTCHESTER

MUNI: Bedford-Town-0057

BIN:

RR CROSSING:

HPMS SAMPLE:

SPEED LIMIT: 40

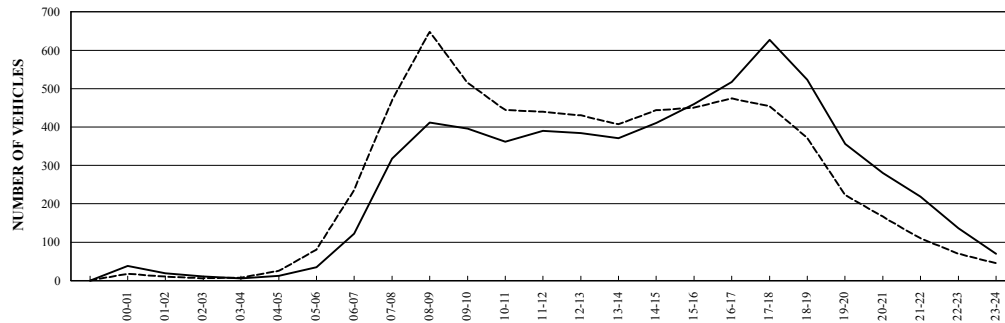
Hour	00-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-149	Total	% > 55	% > 60	% > 65	% > 70	% > 75	Avg	50th%	85th%
00-01	0	0	0	2	4	7	3	0	1	0	0	0	0	0	0	17	5.90	0.00	0.00	0.00	0.00	41.9	41.8	47.4
01-02	0	0	1	2	3	3	1	0	0	0	0	0	0	0	0	10	0.00	0.00	0.00	0.00	0.00	38.0	38.3	44.2
02-03	0	0	0	1	2	2	0	1	0	0	0	0	0	0	0	6	0.00	0.00	0.00	0.00	0.00	40.8	40.0	50.5
03-04	0	0	0	1	2	2	1	1	0	0	0	0	0	0	0	7	0.00	0.00	0.00	0.00	0.00	41.8	41.3	49.8
04-05	0	0	1	2	7	9	4	2	0	0	0	0	0	0	0	25	0.00	0.00	0.00	0.00	0.00	41.3	41.4	47.8
05-06	0	1	1	5	21	30	19	3	0	0	0	0	0	0	0	80	0.00	0.00	0.00	0.00	0.00	41.7	42.0	47.6
06-07	2	2	7	10	63	95	46	9	1	0	0	0	0	0	0	235	0.40	0.00	0.00	0.00	0.00	41.3	41.8	47.3
07-08	2	5	22	79	181	146	30	4	0	0	0	0	0	0	0	469	0.00	0.00	0.00	0.00	0.00	38.2	38.5	43.8
08-09	9	10	55	172	268	118	15	1	0	0	0	0	0	0	0	648	0.00	0.00	0.00	0.00	0.00	35.9	36.5	41.6
09-10	8	9	43	144	206	89	15	1	0	0	0	0	0	0	0	515	0.00	0.00	0.00	0.00	0.00	35.8	36.3	41.6
10-11	2	5	32	119	182	89	13	2	0	0	0	0	0	0	0	444	0.00	0.00	0.00	0.00	0.00	36.5	36.8	42.1
11-12	3	8	33	128	177	76	12	1	1	0	0	0	0	0	0	439	0.20	0.00	0.00	0.00	0.00	36.0	36.3	41.6
12-13	19	13	30	108	167	77	15	1	0	0	0	0	0	0	0	430	0.00	0.00	0.00	0.00	0.00	35.2	36.3	41.9
13-14	2	7	29	112	160	82	14	1	0	0	0	0	0	0	0	407	0.00	0.00	0.00	0.00	0.00	36.4	36.7	42.2
14-15	5	10	29	119	186	81	12	1	0	0	0	0	0	0	0	443	0.00	0.00	0.00	0.00	0.00	36.1	36.6	41.7
15-16	5	9	35	110	184	92	14	1	0	0	0	0	0	0	0	450	0.00	0.00	0.00	0.00	0.00	36.3	36.8	42.1
16-17	2	9	34	120	201	94	12	2	0	0	0	0	0	0	0	474	0.00	0.00	0.00	0.00	0.00	36.4	36.8	42.0
17-18	5	9	38	97	181	105	17	2	0	0	0	0	0	0	0	454	0.00	0.00	0.00	0.00	0.00	36.6	37.2	42.7
18-19	5	9	30	86	144	82	15	1	0	0	0	0	0	0	0	372	0.00	0.00	0.00	0.00	0.00	36.4	36.9	42.6
19-20	3	4	17	47	86	54	11	1	0	0	0	0	0	0	0	223	0.00	0.00	0.00	0.00	0.00	36.8	37.4	43.0
20-21	1	1	15	38	61	38	11	1	0	0	0	0	0	0	0	166	0.00	0.00	0.00	0.00	0.00	37.1	37.3	43.3
21-22	1	1	3	17	50	29	8	1	0	0	0	0	0	0	0	110	0.00	0.00	0.00	0.00	0.00	38.3	38.3	43.7
22-23	0	0	1	8	27	22	9	2	1	0	0	0	0	0	0	70	1.40	0.00	0.00	0.00	0.00	40.4	39.8	45.8
23-24	0	0	1	4	12	19	5	2	1	1	0	0	0	0	0	45	4.40	2.20	0.00	0.00	0.00	41.7	41.4	47.3
Avg Daily Total	74	112	457	1531	2575	1441	302	41	5	1	0	0	0	0	0	6539	0.10	0.00	0.00	0.00	0.00	36.7	37.1	42.8
Percent	1.1	1.7	7.0	23.4	39.4	22.0	4.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0									
Cum Percent	1.1	2.8	9.8	33.3	72.6	94.7	99.3	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0									
Average Hour	3	5	19	64	107	60	13	2	0	0	0	0	0	0	0	272								

Direction	Avg.Speed	50th % Speed	85th % Speed
North	36.3	36.7	42.3
South	36.7	37.1	42.8

Peak Hour Data

Direction	Hour	Count	2-way	Hour	Count
North	17-18	627	A.M.	08-09	1061
South	08-09	648	P.M.	17-18	1081

TRAFFIC FLOW BY DIRECTION



—North - - - South