TRAFFIC IMPACT REPORT

May 2, 2025

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HARTWELL HEIGHTS

TOWN OF PERINTON, NY

PREPARED FOR:
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1.0 EXECUTIVE SUMMARY

The purpose of this report is to evaluate the potential traffic impacts associated with the proposed residential project located at 2 Thornell Road in the Town of Perinton, NY. Within this report, the operating characteristics of the proposed access points and impacts to the adjacent roadway network are identified. Mitigating measures—if needed—are provided to minimize capacity or safety concerns. Passero consulted with the Town of Perinton to develop the general scope of work for this study.

To define traffic impact, this analysis establishes existing baseline traffic conditions, projects background traffic flow including area growth, and determines the traffic operations that would result from the proposed project. All figures, supporting calculations, and the conceptual site plan are included at the end of this report.

Traffic Impact Report Methodology

This comprehensive Traffic Impact Report provides the Town of Perinton, the New York State Department of Transportation (NYSDOT), the Monroe County Department of Transportation (MCDOT), and other involved and interested agencies with detailed information allowing for a "hard look" of potential traffic impacts.

This study was completed in accordance with the procedures of the New York State Environmental Quality Review Act (SEQRA), the NYSDOT, the MCDOT, the Institute of Transportation Engineers (ITE), and local requirements. SEQR assumes that a project generating fewer than 100 peak hour vehicle trips per day will not result in any significant increases in traffic.

Project Location, Description, and Study Area

The site's address is 2 Thornell Road. Currently, the site is occupied by an existing building at the southeast corner of NY-96 and Thornell Road. Another vacant housing structure is present along NY-96. Vicinity land uses include residential, commercial, and service.

The project entails constructing 30 units of single-family attached housing in five separate buildings. Access is proposed via the existing Thornell Road driveway and along NY-96. The NY-96 access will be consolidated with the adjacent small business owner pending agreements between the property owners.

The Town of Perinton selected the following existing intersections to ensure a comprehensive analysis of potential traffic impacts based on the peak hours of trip generation.

- NY-96 at Thornell Road
- NY-96 at Marsh Road
- NY-96 at Kreag Road

Findings and Recommendations

This report identified and evaluated the potential traffic impacts that can be expected from the proposed residential project. The primary conclusion of this comprehensive study is that the existing transportation network can adequately accommodate the projected traffic volumes and minor impacts to study area intersections.

As noted, this project will generate 17 or fewer peak hour trips. All movements generally operate at an acceptable LOS D or better under all conditions during the peak hours at the study intersections.

Pursuant to SEQRA, this detailed analysis conducted with respect to nationally and locally accepted standards demonstrates that the proposed project does not result in any significant adverse traffic impacts.

2.0 INTRODUCTION

2.1 Study Purpose and Objectives

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2.3 Project Location

The site's address is 2 Thornell Road. Currently, the site is occupied by an existing building at the southeast corner of NY-96 and Thornell Road. Another vacant housing structure is present along NY-96. Vicinity land uses include residential, commercial, and service. The site boundaries are:

- (North) NY-96
- (East) Small office development
- (South) Residential
- (West) Thornell Road

2.4 Study Area

The Town of Perinton selected the following existing intersections to ensure a comprehensive analysis of potential traffic impacts based on the peak hours of trip generation. **Figure 1** illustrates the study area and project location.

- NY-96 at Thornell Road
- NY-96 at Marsh Road
- NY-96 at Kreag Road

3.0 TRANSPORTATION SETTING

3.1 Description of Study Area Roadways

The information outlined in **Table 1** provides a description of the existing roadway network within the study area. The Annual Average Daily Traffic (AADT), in vehicles per day (vpd), reflect the most recently collected data obtained from the NYSDOT or Passero via an extrapolation of traffic counts performed at the study intersections.

Functional classification (FC) of roadways, determined by NYSDOT and the Federal Highway Administration (FHWA), organizes roads, streets, and highways into classes based on their usage. The study area includes the following functional classifications: **Urban Principal Arterial Other (Class 14)**, and **Urban Minor Arterial (Class 16)**.

Table 1: *Existing Roadway Network*

ROADWAY	FC	AGENCY	ROADWAY CONDITIONS				AADT		
			SPEED	LANES	LANE WIDTH	SHOULDER WIDTH	VOLUME	SOURCE	YEAR
NY-96	16	NYSDOT	30-55	2	11	5-6	16,369	NYSDOT	2022
Thornell Road (CR-33)	17	MCDOT	35	2	11	3	5,087	NYSDOT	2022
Marsh Road (CR-38)	17	MCDOT	35	2	10-11	3-4	3,405	NYSDOT	2024
Kreag Road (CR-27)	16	MCDOT	35	2	11	4-5	7,942	NYSDOT	2023

Speeds shown in miles per hour. Widths shown in feet.

Table 2 summarizes the traffic controls, pedestrian, bicycle, and transit accommodations at the study intersections.

Table 2: *Multimodal Network*

INTERSECTION	TRAFFIC CONTROL	PEDESTRIAN			BICYCLE		OTHER	
		SIDE-WALK	CROSS-WALK	PED SIGNAL	LANE	OTHER	TRANSIT	LIGHTING
NY-96 at Thornell Road	Stop	P	P	N	N	In-lane / Shoulder	N	Y
NY-96 at Marsh Road	Signal	F	F	Y	N	In-lane / Shoulder	N	Y
NY-96 at Kreag Road	Signal	F	P	Y	N	In-lane / Shoulder	N	Y

Note: F = Fully, P = Partial, Y = Yes, N = Not Present

3.2 Planned / Programmed Roadway Improvements

Passero reviewed the NYSDOT *Projects in Your Neighborhood* web portal. One project was identified:

- **NYSDOT PIN 449016**: This project will replace the bridges carrying I-490 over the Erie Canal and Kreag Road in the Town of Perinton, Monroe County. The eastbound I-490 off and on-ramps are closed until later in 2025.

4.0 EXISTING CONDITIONS ANALYSIS

4.1 Peak Intervals for Analysis

Given the functional characteristics of the corridors, adjacent land uses, and the proposed land uses, the following peak periods were selected for analysis. The combination of future site traffic and adjacent street traffic produces the greatest travel demands during these peaks.

- Weekday AM Peak: 7:00 to 9:00 AM
- Weekday PM Peak: 3:00 to 6:00 PM

4.2 Existing Traffic Volume Data

Passero conducted manual turning movement traffic counts on Wednesday, April 2, 2025, to determine peak hour traffic volumes. The turning movement count data was collected on a typical weekday while local schools were in session. No adverse weather conditions impacted the traffic counts. The peak hour traffic periods generally occurred from 8:00 to 9:00 AM and 4:45 to 5:45 PM.

The traffic volumes were reviewed to confirm accuracy, seasonality, and relative balance between intersections. According to the NYSDOT and traffic engineering principles, traffic is typically affected by the seasons of the year with it being lower during the winter months and higher during the summer months. The NYSDOT Seasonal Adjustment Factors are used to remove this seasonal bias by converting the Average Daily Traffic (ADT) from short count data into AADT data—where AADT is the average daily traffic for the entire year.

The factors are grouped into three major groups according to how much the road segments are affected by the seasons of the year. These factor groups follow the suggestions of the Federal Highway Administration (FHWA) *Traffic Monitoring Guide*. **Table 3** describes the categories.

Table 3: *Seasonal Adjustment Categories*

CATEGORIES	FACTOR GROUP 30 COMMUTER-DOMINATED	FACTOR GROUP 40 NON-COMMUTER DOMINATED	FACTOR GROUP 60 RECREATIONAL
Traffic Patterns	Urbanized	Suburban	Recreational
Seasonal Effect	Minimal	Moderate	Extreme
Coefficient of Variation	Less than 10%	10% to 25%	More than 25%

Passero reviewed the latest NYSDOT *Seasonal Adjustment Factors (2024)*. The study roadways are Factor Group 30, which is "commuter dominated." The seasonal adjustment factor for April is 1.041, which means traffic counts taken during this month are higher than average yearly traffic. This indicates no seasonal adjustment is required.

Figure 2 illustrates the existing peak hour traffic volumes for the AM and PM peak hours. The actual differences in traffic volumes can be attributed to temporal variations in traffic volumes, activity related to driveways located in the segments between the study intersections, and traffic disruptions from the NYSDOT road work.

4.3 Field Observations

The study intersections were observed during peak intervals to assess current traffic operations. Signal timing and phasing information was obtained from the NYSDOT to determine peak hour phasing plans and phase durations during each interval at the signalized intersections. This information was used to support and/or calibrate the study's capacity analysis models.

4.4 *Peak Hour Queue Assessment*

This study documented how often the northbound queue lengths at NY-96 and Thornell Road blocked the proposed driveway location. The distance between the Thornell Road stop bar and the proposed driveway centerline is approximately 95 feet—or three to four car lengths using a car spacing distance of 25 feet (including vehicle length and space between vehicles).

The total time in seconds and the percentage of the peak hour vehicles blocked the proposed driveway during each peak hour is shown below. An hour is comprised of 3,600 seconds.

- AM Peak Hour (8:00 to 9:00 AM)
  - Time: 197 seconds
  - Percent of peak: 5.5%
- PM Peak Hour (4:45 to 5:45 PM)
  - Time: 309 seconds
  - Percent of peak: 8.6%

Passero observed drivers occasionally performing rolling stops when approaching NY-96 if gaps in traffic were readily available.

4.5 *Sight Distance Evaluation*

Passero investigated available sight distances at the proposed access along NY-96. Sight distance is provided at intersections to allow drivers to perceive the presence of potentially conflicting vehicles. This should occur in sufficient time for a motorist to stop or adjust their speed, as appropriate, to avoid a collision at the intersection. Sight distance is also provided at intersections to allow the drivers of stopped vehicles to have a sufficient view of the intersecting highway to anticipate and avoid potential incidents.

If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate Stopping Sight Distance (SSD) for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. To enhance traffic operations, Intersection Sight Distances (ISD) that exceed that exceed SSD are desirable along the major road.

Sight distance is evaluated using guidance contained within *A Policy on Geometric Design of Highways and Streets (7th Edition)* published by the American Association of State Highway and Transportation Officials (AASHTO) and the NYSDOT *Highway Design Manual* to establish the required SSD and desirable ISD. The recommended sight distances are based on a road's design speed (posted plus 5 mph).

Table 4: *Sight Distance Results*

CATEGORY	DESIGN SPEED	RECOMMENDATION	MEASUREMENTS	
Stopping Sight Distance	35 mph	250'	*To Left*	*To Right*
			300'	>500'
Intersection Sight Distance	35 mph	390'	*To Left*	*To Right*
			340'	>500'

Sight distance is limited to the left. Passero recommends intersection warning signage (W2-2) be installed for eastbound traffic entering Bushnell's Basin. Any signage should not conflict with adjacent signage and not obstruct the views at the NY-96 and Thornell Road intersection.

4.6 Existing Crash Investigation

The Federal Highway Administration (FHWA) and local agencies, such as NYSDOT, have adopted the Safe Systems Approach to roadway safety. This approach prioritizes the elimination of crashes that result in death and serious injuries. The safety evaluation process follows three general components: identification of safety problems, development of potential safety strategies, and selection and implementation of strategies.

Intersections are evaluated using the Potential for Safety Improvement (PSI) and Safety Performance Function (SPF) methodology described in the latest American Association of State Highway Transportation Officials (AASHTO) *Highway Safety Manual (2010)*, FHWA *Road Safety Fundamentals (2017)*, NYSDOT *Yellow Book (2023)*, and NYSDOT *Red Book (2023)*. The accompanying SPF worksheet can be obtained from the NYSDOT Crash Analysis Toolbox. NYSDOT defines PSI and SPF as:

- **Potential for Safety Improvement (PSI)** A comparison of the site-specific safety performance compared to the statewide average using either observed or expected crashes depending on whether traffic volume is available.
- **Safety Performance Function (SPF)** An equation used to estimate or predict the average crash frequency per year at a location as a function of traffic volume and, in some cases, roadway or intersection characteristics (e.g., number of lanes, traffic control, or type of median).

To support this effort on a site-level scale, Passero obtained crash history data using MV-104 Police Accident Reports provided by the NYSDOT *Crash Location & Engineering Analysis & Reporting (CLEAR)* database from 06/30/2019 to 06/30/2024.

Table 5 provides a summary of the crashes that occurred within the study area and resulting PSI. SPF Prediction, Expected Crashes, and Excess Expected Crashes are shown as crashes per year. NYSDOT suggests that intersections with positive values under Excess Expected Crashes per year greater than 5.0000 for total crashes and 1.0000, with a high Level of Service of Safety (LOSS) should be evaluated further for potential safety improvements.

Table 5: *Intersection Crash Rate Analysis*

INTERSECTION	CRASHES		SPF PREDICTION		EXPECTED CRASHES		EXCESS EXPECTED CRASHES		LOSS	
	TOTAL	INJURY	TOTAL	INJURY	TOTAL	INJURY	TOTAL	INJURY	TOTAL	INJURY
NY-96 at Thornell Road	12	1	2.1437	0.7016	2.3683	0.3307	0.2246	-0.3709	3	2

LOSS is the ranking of sites according to their observed and expected crash frequency for the entire population, where the degree of deviation is then labeled into four classes of level of service. LOSS 1 = Indicates a low potential for crash reduction. LOSS 2 = Indicates a low to moderate potential for crash reduction. LOSS 3 = Indicates a moderate to high potential for crash reduction. LOSS 4 = Indicates a high potential for crash reduction.

Three of the crashes were single-vehicle incidents involving drivers who collided with fixed objects. The remaining crashes occurred predominantly in the northbound direction from Thornell Road and included: three rear-end collisions; one westbound left-turn crash; a crash involving a vehicle performing a U-turn; a conflict in which a northbound vehicle turned right in front of another vehicle simultaneously turning from Thornell Road; and a sideswipe incident in the northbound direction. Additionally, one low-speed crash occurred when a driver rolled backward into a vehicle on Thornell Road after their foot slipped off the brake pedal.

The primary contributing factors across these crashes were driver inattention and failure to yield the right of way. Of the reported incidents, only the left-turn crash resulted in a minor injury.

4.7 *Traffic Gap Assessment*

A gap acceptance study was conducted at the proposed access along NY-96 to determine the availability of gaps for drivers to enter the driveway (left turns from NY-96) and exit the driveway (left and right turns onto NY-96). For unsignalized intersections such as this, gap availability can be used as a surrogate methodology for evaluating the ability of side road traffic to enter and exit the fronting traffic stream.

The availability of gaps within the traffic stream primarily determines the side road driver behavior and delay for both entering and exiting motorists. A gap study counts the actual gaps in existing traffic available for a vehicle to enter or exit the side road. The difference between the actual number of gaps and the projected demand for a particular traffic movement can then be calculated as a reserve or deficit capacity.

The latest *Highway Capacity Manual (7th Edition)* provides data relative to gap sizes that motorists find acceptable to execute the required maneuver. Passero collected existing traffic gap data during the study periods to evaluate existing and potential future operating conditions. **Table 6** summarizes the applicable movement, acceptable gap duration, and the existing gaps during the peak hours.

Table 6: *Gap Acceptance Results*

MOVEMENT	GAP DURATION (SECONDS)	AM PEAK HOUR	PM PEAK HOUR
Left from NY-96	4.1	590	532
Left from Driveway	7.1	59	37
Right from Driveway	6,2	307	254

5.0 BACKGROUND (NO BUILD) CONDITIONS

Background traffic volumes represent the traffic conditions during the proposed build year without development of the project. The project is anticipated to be completed and occupied within five years depending on project approvals and market conditions. The widely accepted methodology for preparing traffic impact studies requires that any projects in the study area that are currently approved and/or under construction must be considered in the traffic analysis. Projects that are contemplated but are not yet approved are not included in the traffic impact study.

Passero consulted with personnel from the Town of Perinton to identify any additional development projects that could potentially contribute to increased traffic within the study area. Although no approved projects in the immediate vicinity were identified, Town staff noted that a redevelopment proposal for the former Burgundy Basin Inn site is currently under review by Town boards. At this time, there is no indication that the proposal will be approved.

A review of available historical NYSDOT traffic volume data in the vicinity of the site indicates that traffic has fluctuated between 2014 and 2024. Passero also reviewed the latest MCDOT *Monroe County Vehicle Traffic Volume Trends (2024)* memo, which recommends an annual growth rate of 1.0% per year for the Town of Perinton. This is largely based on county road data.

To account for normal increases in background traffic growth, including the noted development and any unforeseen developments in the study area, an adjusted growth rate of 1.0% per year was applied to the existing traffic volumes for a duration of five years. **Figure 3** depicts the background traffic volumes.

6.0 PROPOSED DEVELOPMENT CONDITIONS

6.1 Project Description

The project entails constructing 30 units of single-family attached housing in five separate buildings. Access is proposed via the existing Thornell Road driveway and along NY-96. The NY-96 access will be consolidated with the adjacent small business owner pending agreements between the property owners.

6.2 Trip Generation

The traffic volume generated by a site depends on the development's land use and size. Trip generation estimates the number of trips associated with a specific land use or building, representing the volume of traffic entering and exiting the site. The peak-hour trip rate for the site may differ in timing or volume from the peak hour of traffic on adjacent streets. The latest ITE *Trip Generation Manual (11th Edition)* is the industry standard reference for this information.

For capacity analysis, the critical volumes are those generated during the weekday AM and PM peak hours of the adjacent street traffic and proposed land use. These intervals form the basis of this analysis. **Table 7** shows the anticipated trip generation.

Table 7: *Site Generated Trips*

DESCRIPTION	SOURCE	SIZE	UNIT	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
Residential	ITE 215	30	DU	4	10	14	10	7	17

6.3 Trip Distribution

The cumulative effect of site generated traffic on the transportation network is dependent on the origins and destinations of that traffic and the location of the access drives serving the site. The proposed arrival and departure distribution of traffic generated by the proposed project is considered a function of several parameters, including:

- Employment areas using Longitudinal Employer-Household Dynamics (LODES) data from the U.S. Census.
- Proximity and access to main roadways (e.g., I-490, NY-31).
- Proximity and access to activity centers (e.g., Village of Pittsford, NY-31 Wegmans, schools, etc.)
- Site access locations
- Existing roadway network and contextual factors.
- Navigational aids (e.g., Google Maps, Apple Maps, Waze, etc.).
- Existing traffic patterns derived from the traffic counts.
- Existing traffic conditions and controls.

Figure 4 shows the anticipated trip distribution pattern percentage for the project site. **Figure 5** illustrates the total peak hour trip assignments based on the anticipated trip distribution.

6.4 Full Development Volumes

The proposed future traffic volumes are developed for the peak hours by combining the background traffic conditions without the project (**Figure 3**) and the new site trips (**Figure 5**) to yield the traffic volumes under full build conditions. **Figure 6** illustrates the total anticipated full build peak hour volumes for the AM and PM peak hours.

7.0 TRAFFIC OPERATIONS AND ANALYSIS

7.1 Description of Capacity Analysis and Evaluation Techniques

Capacity analysis is a technique used for determining a measure of effectiveness for a section of roadway and/or intersection based on the number of vehicles during a specific period of time. The measure of effectiveness used for the capacity analysis is referred to as a Level of Service (LOS). Levels of service are calculated to provide an indication of the amount of delay that a motorist experiences while traveling along a roadway or through an intersection. Since the most amount of delay to motorists usually occurs at intersections, capacity analysis focuses on intersections, as opposed to roadway/highway segments.

The standard procedure for capacity analysis of signalized and unsignalized intersections is outlined in the latest Transportation Research Board (TRB) *Highway Capacity Manual (HCM) (7th Edition)*. Traffic analysis software, *Synchro 12*, which is based on procedures and methodologies contained in the HCM, was used to analyze operating conditions at study area intersections. The procedure yields a LOS based on the HCM as an indicator of how well intersections operate.

Evaluations may also be supplemented with traffic simulation modeling using an extension of *Synchro* called *SimTraffic*. During simulation modeling, vehicles are individually tracked, and statistics are recorded on a second-by-second basis to determine the delays each vehicle experiences. Since *SimTraffic* simulation modeling is microscopic and stochastic, meaning car movement parameters vary randomly within a set distribution based on an initial seed number, the same traffic volume may result in slightly different results depending on the random seed used. Therefore, simulation results are reported based on an average value of multiple simulation runs (five or more) to reduce the variability in results.

7.2 Performance Measures

Six levels of service are defined for analysis purposes. They are assigned letter designations, from A to F, with LOS A representing the conditions with little to no delay, and LOS F conditions with very long delays. **Table 8** depicts LOS criteria for signalized and unsignalized intersections with their associated average delays per vehicle in seconds.

Table 8: *Level of Service Criteria*

LOS	SIGNALIZED CONTROL	UNSIGNALIZED CONTROL
A	< 10	< 10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	> 80	> 50

Signalized intersection LOS is defined in terms of the average total vehicle delay of individual and all movements through an intersection for a 15-minute analysis period. The total delay experienced by a road user can be defined as the difference between the measured travel time and the reference travel time that would result in the absence of traffic control, changes in speed due to geometric conditions, any incidents, and the interaction with any other road users (adapted from the HCM definition).

LOS criteria for unsignalized intersections differ from those for signalized intersections. This is primarily due to driver expectations—signalized intersections are designed to accommodate higher traffic volumes, while unsignalized intersections introduce more uncertainty for users. Delays at unsignalized intersections are generally less predictable compared to signalized intersections, where traffic control provides more consistent operations.

The volume-to-capacity (v/c) ratio, also referred to as degree of saturation, represents the sufficiency of an intersection movement or the overall intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that adequate capacity is available, and vehicles are not expected to experience significant queues and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur.

7.3 Generalized Acceptable Level of Service Thresholds

In accordance with common transportation engineering practice in conjunction with NYSDOT, ITE, and SEQRA methodologies, a project may have a noticeable impact if the addition of peak hour trips would increase traffic volumes by 100 vehicles or more.[1] Permitting agencies (e.g., NYSDOT and the SEQRA process) use guidelines in determining whether a project may result in a change in vehicular operations—noticeable drop in LOS, increase in delays, or increase in v/c ratios—and potentially requires appropriate mitigation to offset project-related impacts. SEQRA requires the lead agency to identify an impact as either "none/small impact" or "moderate to large impact."

LOS C or better is desirable, but LOS D for signalized locations and LOS E for unsignalized locations are generally thresholds of acceptable operation during peak periods so long as the v/c ratio is below 1.0. NYSDOT specifically considers a LOS C to be acceptable in rural conditions and a LOS D to be acceptable in urban conditions.

SEQRA guidelines and recommended practice indicate that a project generating fewer than 100 peak hour vehicle trips per day is unlikely to result in significant adverse impacts. In general, traffic volume increases less than these thresholds could be attributed to the fluctuation of vehicles due to driver patterns that occur during the day, on different days of the week, or different months of the year.

7.4 Capacity Analysis Results

Existing and background operating conditions during the peak study periods are evaluated to determine a basis for comparison with the projected future conditions. The future traffic conditions generated by the project were analyzed to assess the operation of the study area intersections. **Table 9** depicts the capacity results for existing, background, and full build conditions. The discussion following the table summarizes capacity conditions.

[1] *Multimodal Transportation Impact Analysis for Site Development: An ITE Recommended Practice. Institute of Transportation Engineers. Washington DC. 2023.*

Table 9: *Capacity Analysis Results*

INTERSECTION	2025 EXISTING CONDITIONS						2030 BACKGROUND CONDITIONS						2030 FULL BUILD CONDITIONS					
	AM			PM			AM			PM			AM			PM		
	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	v/c
1. Thornell Road at Proposed Access (U)																		
WB - Proposed Access	Not Built			Not Built			Not Built			Not Built			B	11.5	0.00	B	11.6	0.00
SB - Thornell Road													A	0.0	0.00	A	7.9	0.00
2. NY-96 at Thornell Road (U)																		
EB - NY-96	A	1.4	0.00	A	1.8	0.00	A	1.4	0.00	A	1.8	0.00	A	1.5	0.00	A	1.9	0.00
WB Left - NY-96	A	4.2	0.18	A	6.9	0.32	A	4.7	0.19	A	6.9	0.34	A	5.7	0.19	A	9.4	0.35
WB Thru - NY-96	A	3.6	0.00	A	4.1	0.00	A	3.8	0.00	A	4.1	0.00	A	1.2	0.00	A	1.7	0.00
NB Left - Thornell Road	D	25.3	0.33	E	43.6	0.47	D	27.6	0.39	E	43.6	0.59	D	26.7	0.40	E	48.0	0.62
NB Right - Thornell Road	A	8.7	0.46	B	12.0	0.65	A	9.5	0.49	B	12.0	0.72	A	7.3	0.49	A	9.8	0.72
3. NY-96 at Proposed Access (U)																		
WB - NY-96	Not Built			Not Built			Not Built			Not Built			A	9.1	0.00	A	9.5	0.01
NB - Proposed Access													C	19.5	0.03	C	21.2	0.02
4. NY-96 at Marsh Road (S)																		
EB Left - NY-96	A	3.7	0.11	A	5.2	0.20	A	3.9	0.13	A	5.8	0.23	A	3.9	0.13	A	5.9	0.23
EB Thru/Right - NY-96	A	6.8	0.45	B	12.8	0.57	A	7.2	0.48	B	13.9	0.60	A	7.3	0.48	B	14.0	0.60
WB Left - NY-96	A	2.5	0.03	A	6.6	0.14	A	2.6	0.03	A	7.2	0.16	A	2.6	0.03	A	7.2	0.16
WB Thru/Right - NY-96	A	9.0	0.66	C	20.7	0.77	B	10.4	0.69	C	23.7	0.82	B	10.5	0.70	C	23.9	0.82
NB Left/Thru - Plaza	C	32.7	0.02	D	42.6	0.44	C	32.7	0.02	D	42.5	0.46	C	32.7	0.02	D	42.5	0.46
NB Right - Plaza	A	0.2	0.03	A	6.6	0.23	A	0.2	0.03	A	7.0	0.24	A	0.2	0.03	A	7.0	0.24
SB Left/Thru - Marsh Road	D	44.8	0.46	D	47.3	0.55	D	45.0	0.47	D	47.6	0.56	D	45.0	0.47	D	47.6	0.56
SB Right - Marsh Road	A	7.1	0.24	A	9.4	0.28	A	7.7	0.25	A	9.8	0.29	A	7.7	0.25	A	10.0	0.29
Overall LOS	**A**	**9.5**	**0.66**	**B**	**18.3**	**0.77**	**B**	**10.4**	**0.69**	**C**	**20.1**	**0.82**	**B**	**10.4**	**0.70**	**C**	**20.3**	**0.82**
5. NY-96 at Kreag Road (S)																		
EB - Bruegger's	C	20.8	0.23	C	31.6	0.04	C	20.6	0.23	C	31.1	0.04	C	20.6	0.23	C	31.1	0.04
WB Left/Thru - Kreag Road	D	47.0	0.65	D	53.4	0.63	D	46.4	0.65	D	53.3	0.64	D	46.4	0.65	D	53.3	0.64
WB Right - Kreag Road	B	11.3	0.37	B	18.4	0.51	B	12.6	0.38	B	19.3	0.53	B	12.7	0.38	B	19.4	0.53
NB Left - NY 96	A	6.8	0.03	A	6.0	0.01	A	7.2	0.03	A	6.5	0.01	A	7.2	0.03	A	6.5	0.01
NB Thru - NY-96	C	22.8	0.63	C	24.1	0.70	C	25.3	0.68	C	27.2	0.75	C	25.5	0.69	C	27.5	0.76
NB Right - NY 96	A	7.7	0.26	A	8.0	0.27	A	8.5	0.28	A	8.8	0.29	A	8.6	0.28	A	8.9	0.29
SB Left - NY-96	B	11.4	0.47	B	10.7	0.50	B	14.2	0.52	B	15.1	0.55	B	14.5	0.52	B	15.6	0.55
SB Thru/Right - NY-96	A	7.8	0.34	A	3.3	0.36	A	8.5	0.36	A	3.4	0.38	A	8.6	0.37	A	3.4	0.38
Overall LOS	**B**	**16.7**	**0.65**	**B**	**16.3**	**0.70**	**B**	**18.2**	**0.68**	**B**	**18.2**	**0.75**	**B**	**18.3**	**0.69**	**B**	**18.3**	**0.76**

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound

N/A = Approach does not exist and/or was not analyzed during this condition

1. Thornell Road / Proposed Access

All movements are projected to operate at LOS B or better under full build conditions during both peak hours. As noted, northbound queues will occasionally block the driveway at times during the AM and PM peak hours. However, given the very low trips using the driveway, there will be sufficient opportunities for drivers to enter and exit the site at this location without impeding prevailing traffic and spilling back into the adjacent intersection at NY-96. No improvements are recommended.

2. NY-96 / Thornell Road

The northbound left movement operates at LOS D during the AM peak hour and LOS E during the PM peak hour. All other movements operate at LOS B or better during the peak hours. No changes in LOS are projected because of the proposed project. There is adequate capacity to accommodate future site trips; thus, no improvements are recommended.

3. NY-96 / Proposed Access

The northbound exiting movement is projected to operate at LOS C under full build conditions during both peak hours. All other movements will operate at LOS A. There are gaps in traffic available for the new trips to enter and exit the driveway. No improvements are recommended.

Although the project site has access via Thornell Road, its access is occasionally blocked during peak travel periods due to queueing. Accordingly, maintaining a second access point along NY-96 is critical for ensuring consistent and dependable ingress and egress to the site. Traffic operations analysis indicates that sufficient gaps in traffic flow along NY-96 are available to accommodate turning movements to and from the site.

Moreover, the developer is actively coordinating with the adjacent property owner to pursue access consolidation, which will result in a net reduction in the number of driveways along the corridor. As part of this collaborative effort, the neighboring property owner has expressed a requirement for full access via NY-96 to support their own operational needs.

Retaining NY-96 access also enhances site accessibility for emergency service providers by ensuring multi-frontage access, which is consistent with best practices for site circulation and emergency response planning.

4. NY-96 / Marsh Road

All movements operate at LOS D or better under all conditions during both peak hours. There are moderate delays at times throughout the peak hours; however, there are fewer delays during the remaining hours of the day. No changes in LOS are anticipated between background and full build conditions. There is adequate capacity to accommodate future site trips; thus, no improvements are recommended.

5. NY-96 / Kreag Road

All movements operate at LOS D or better under all conditions during both peak hours. There are moderate delays at times throughout the peak hours; however, there are fewer delays during the remaining hours of the day. No changes in LOS are anticipated between background and full build conditions. There is adequate capacity to accommodate future site trips; thus, no improvements are recommended.

8.0 CONCLUSIONS AND RECOMMENDATIONS

This report identified and evaluated the potential traffic impacts that can be expected from the proposed residential project. The primary conclusion of this comprehensive study is that the existing transportation network can adequately accommodate the projected traffic volumes and minor impacts to study area intersections.

NYSDOT, MCDOT, ITE, and SEQRA methodologies suggest that a project may have a noticeable impact if new site trips increase traffic volumes at an intersection by 100 vehicles per hour or more. As noted, this project will generate 17 or fewer peak hour trips. All movements generally operate at an acceptable LOS D or better under all conditions during the peak hours at the study intersections.

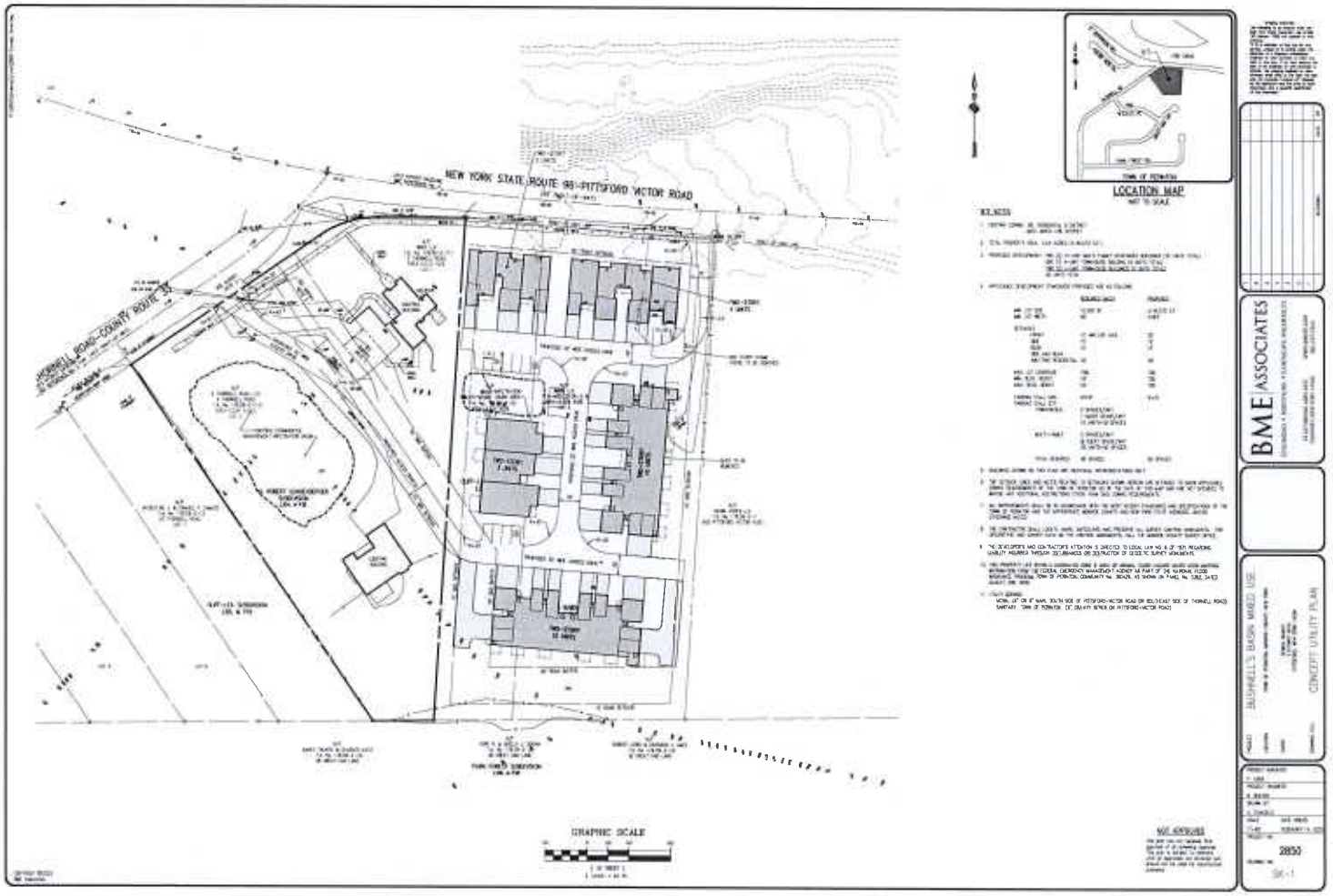
Pursuant to the State Environmental Quality Review Act, this detailed analysis conducted with respect to nationally and locally accepted standards demonstrates that the proposed project does not result in any significant adverse traffic impacts.

9.0 REFERENCES

- Synchro 12 Software. Cubic ITS. 2023.
- Highway Capacity Manual (7th Edition). Transportation Research Board (TRB). Washington, DC. 2022.
- Trip Generation Manual (11th Edition). Institute of Transportation Engineers (ITE). Washington, DC. 2021.
- OnTheMap. United States Census Bureau. 2025.
- Traffic Data Viewer. New York State Department of Transportation (NYSDOT). 2025.
- Manual on Uniform Traffic Control Devices (11th Edition). Federal Highway Administration (FHWA). 2023.
- NCHRP Report 279 Intersection Channelization Design Guide. Transportation Research Board (TRB). 1985.
- Highway Functional Classification Concepts, Criteria, and Procedures. Federal Highway Administration (FHWA). 2023.
- Traffic Monitoring Guide. FHWA. 2022.
- Highway Design Manual. New York State Department of Transportation (NYSDOT). Latest Revisions.
- A Policy on Geometric Design of Highways and Streets (7th Edition). The American Association of State Highway and Transportation Officials (AASHTO). 2018.
- Monroe County Traffic Volume Trends. Monroe County Department of Transportation. 2024.
- Crash Location and Engineering Analysis Repository (CLEAR). New York State Department of Transportation. 2025.

10.0 FIGURES

Figures 1 through 6 are included on the following pages.


NEW YORK STATE ROUTE 96-PITTSFORD VICTOR ROAD
LOCATION MAP
NOT TO SCALE
GRAPHIC SCALE
BME ASSOCIATES
BUSHNELL'S BASIN MIXED USE
CONCEPT UTILITY PLAN
2850
SK-1

PASSERO
engineering architecture
242 West Main Street, Suite 100, Rochester, NY 14614

Study Area and Site Location

Hartwell Heights
Town of Perinton, NY

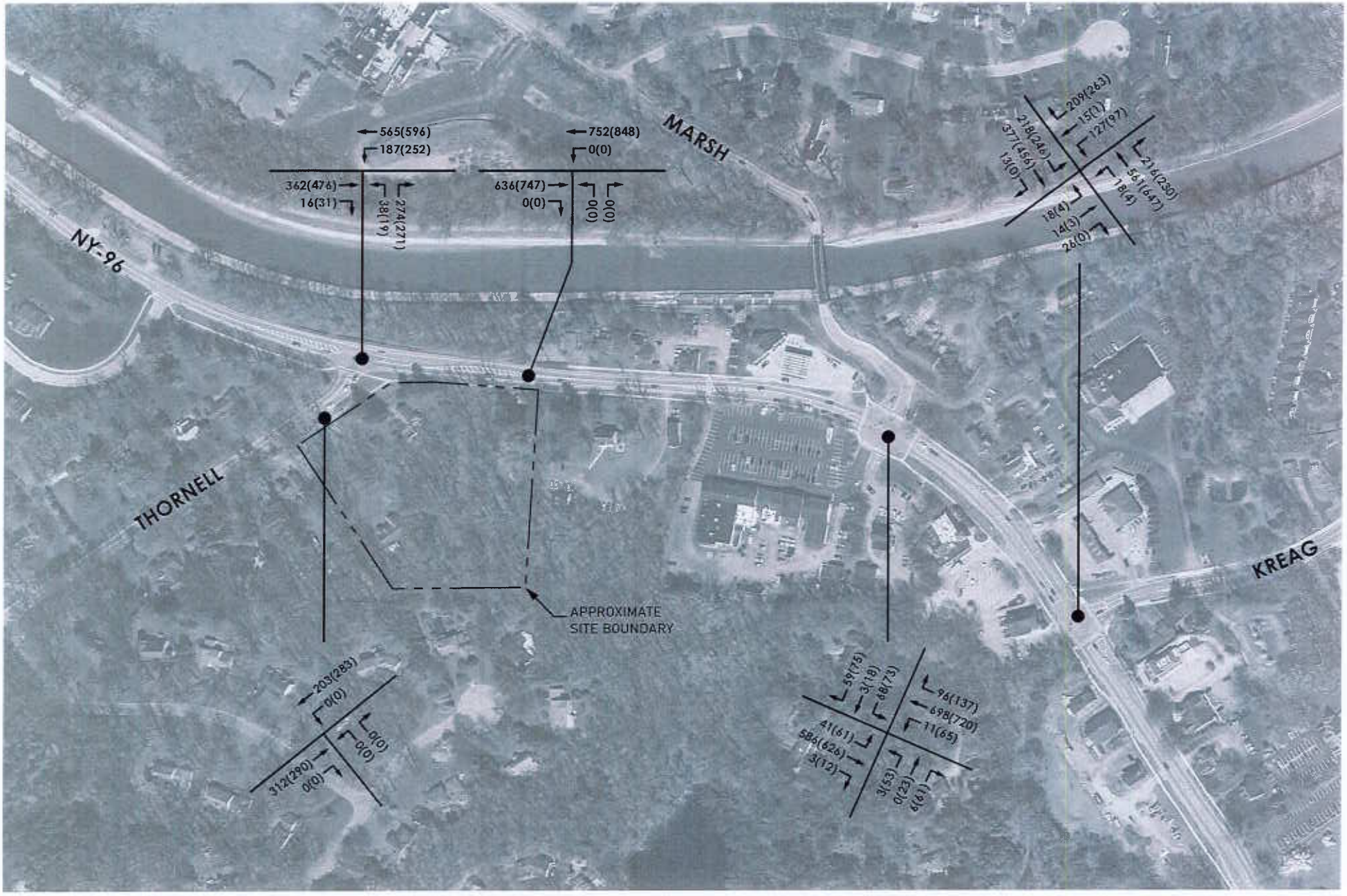
① Existing Intersection
② Proposed Intersection

Peak Hours:
8:00 to 9:00 AM
4:45 to 5:45 PM

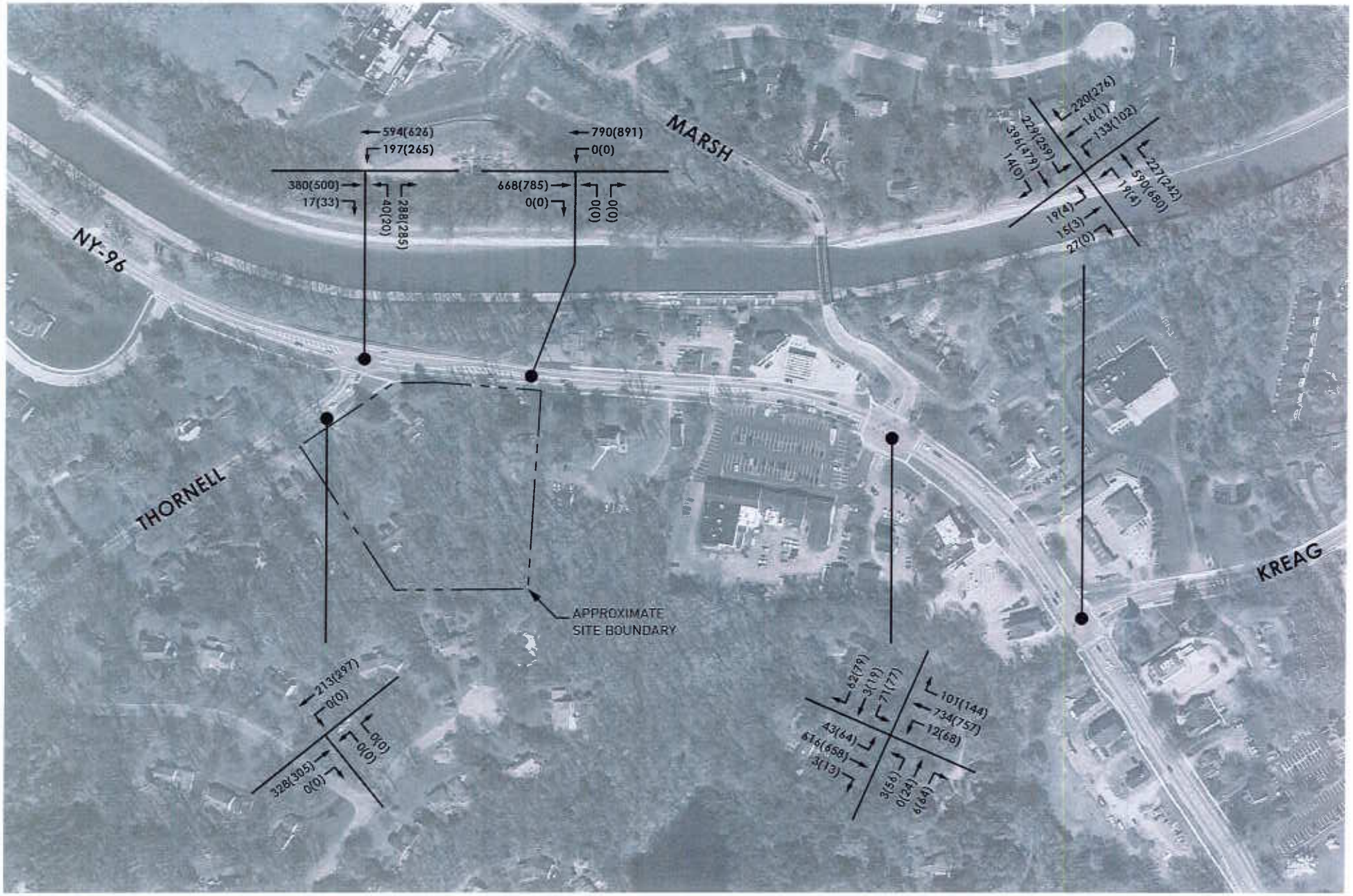
N

FIGURE 1

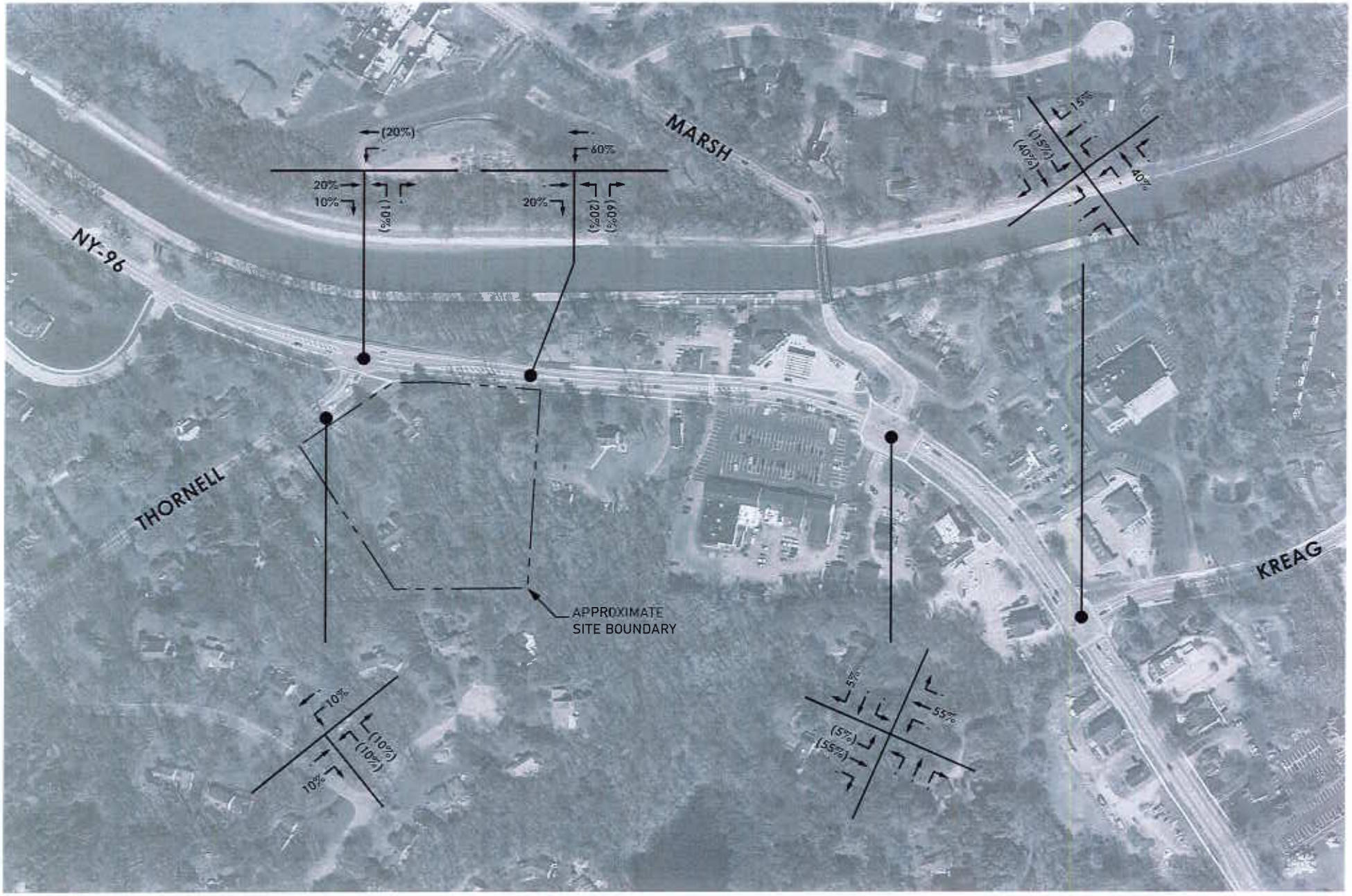
PN: 20254181.0001



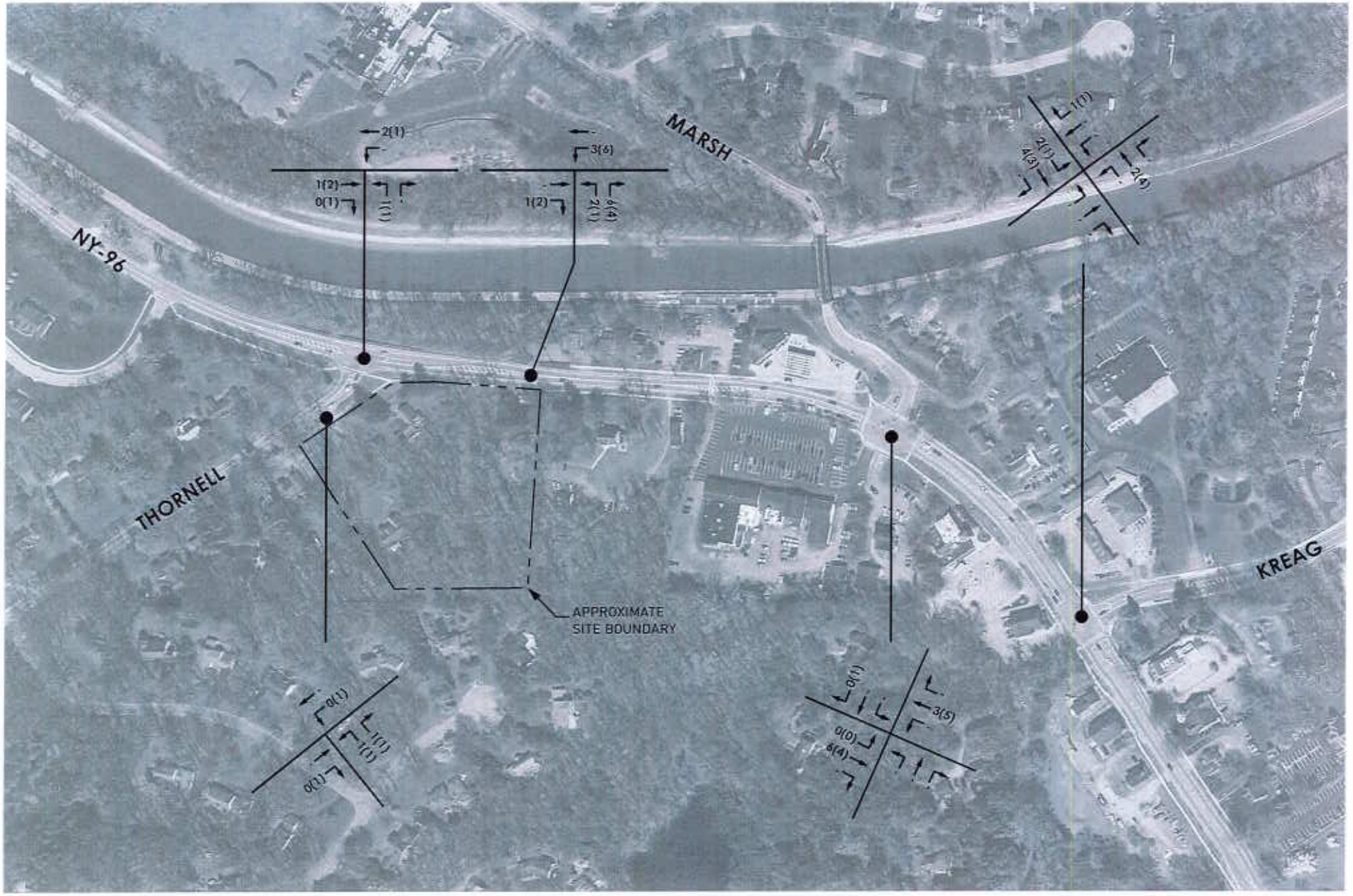
PASSERO engineering architecture 242 West Main Street, Suite 100, Rochester, NY 14614	Peak Hour Volumes: 2025 Existing Conditions **Hartwell Heights** Town of Perinton, NY	#(#) AM(PM) Peak Hours: **8:00 to 9:00 AM** **4:45 to 5:45 PM**	N **FIGURE 2** PN: 20254181.0001



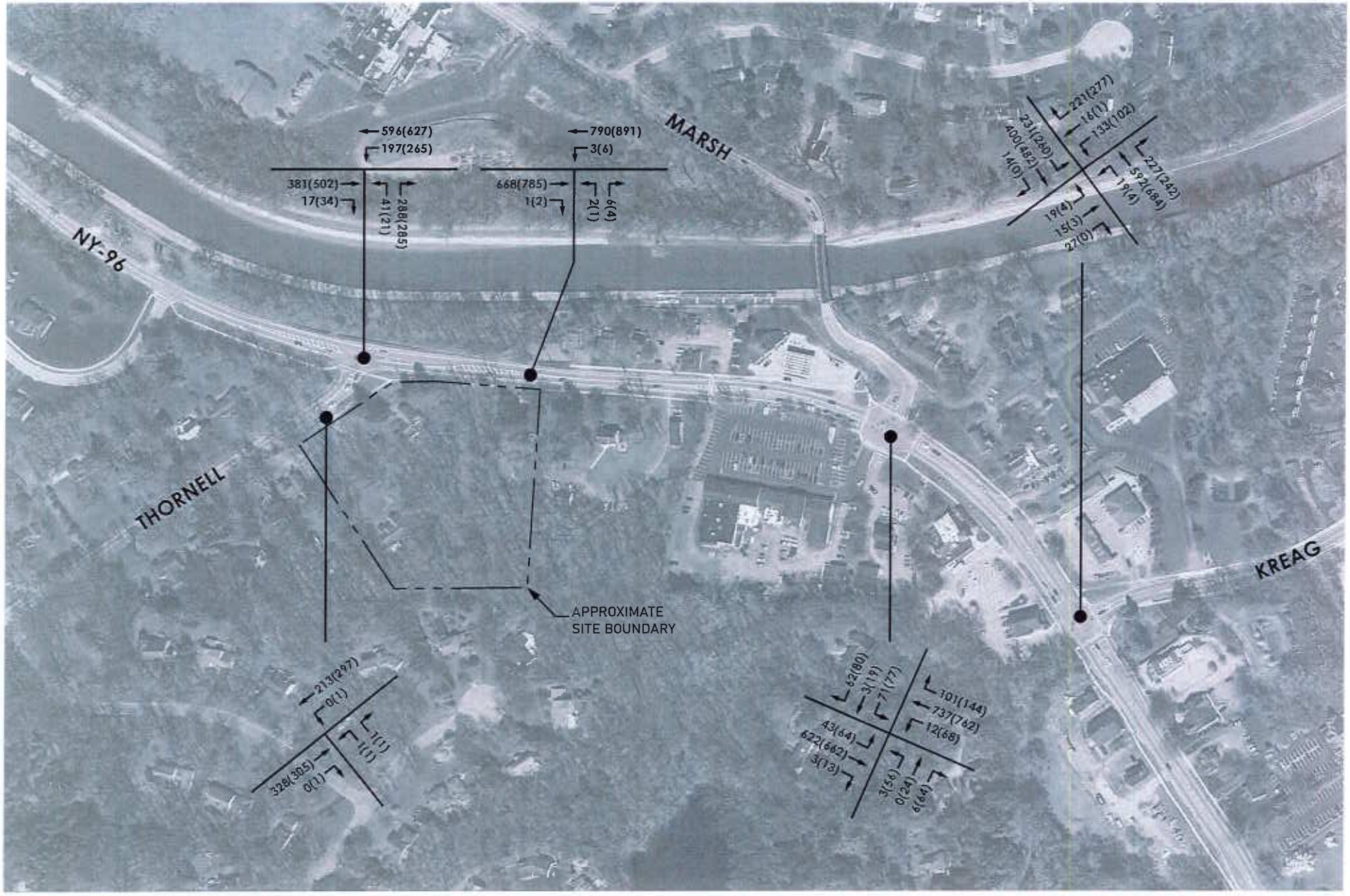
PASSERO engineering architecture 242 West Main Street, Suite 100, Rochester, NY 14614	Peak Hour Volumes: 2030 Background Conditions **Hartwell Heights** Town of Perinton, NY	#(#) AM(PM) Peak Hours: **8:00 to 9:00 AM** **4:45 to 5:45 PM**	N **FIGURE 3** PN: 20254181.0001



PASSERO engineering architecture 242 West Main Street, Suite 100, Rochester, NY 14614	Trip Distribution **Hartwell Heights** Town of Perinton, NY	#(#) Inbound (Outbound) Peak Hours: **8:00 to 9:00 AM** **4:45 to 5:45 PM**	N **FIGURE 4** PN: 20254181.0001



PASSERO engineering architecture 242 West Main Street, Suite 100, Rochester, NY 14614	Trip Assignment **Hartwell Heights** Town of Perinton, NY	#(#) AM(PM) Peak Hours: **8:00 to 9:00 AM** **4:45 to 5:45 PM**	N **FIGURE 5** PN: 20254181.0001



PASSERO engineering architecture 242 West Main Street, Suite 100, Rochester, NY 14614	Peak Hour Volumes: 2030 Full Build Conditions **Hartwell Heights** Town of Perinton, NY	#(#) AM(PM) Peak Hours: **8:00 to 9:00 AM** **4:45 to 5:45 PM**	N **FIGURE 6** PN: 20254181.0001

APPENDICES

APPENDIX A: EXISTING TRAFFIC COUNT DATA

PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Kreag AM
Site Code : 00200866
Start Date : 04/02/2025
Page No : 1

Groups Printed- All Vehicles - Heavy Trucks - Bank 2

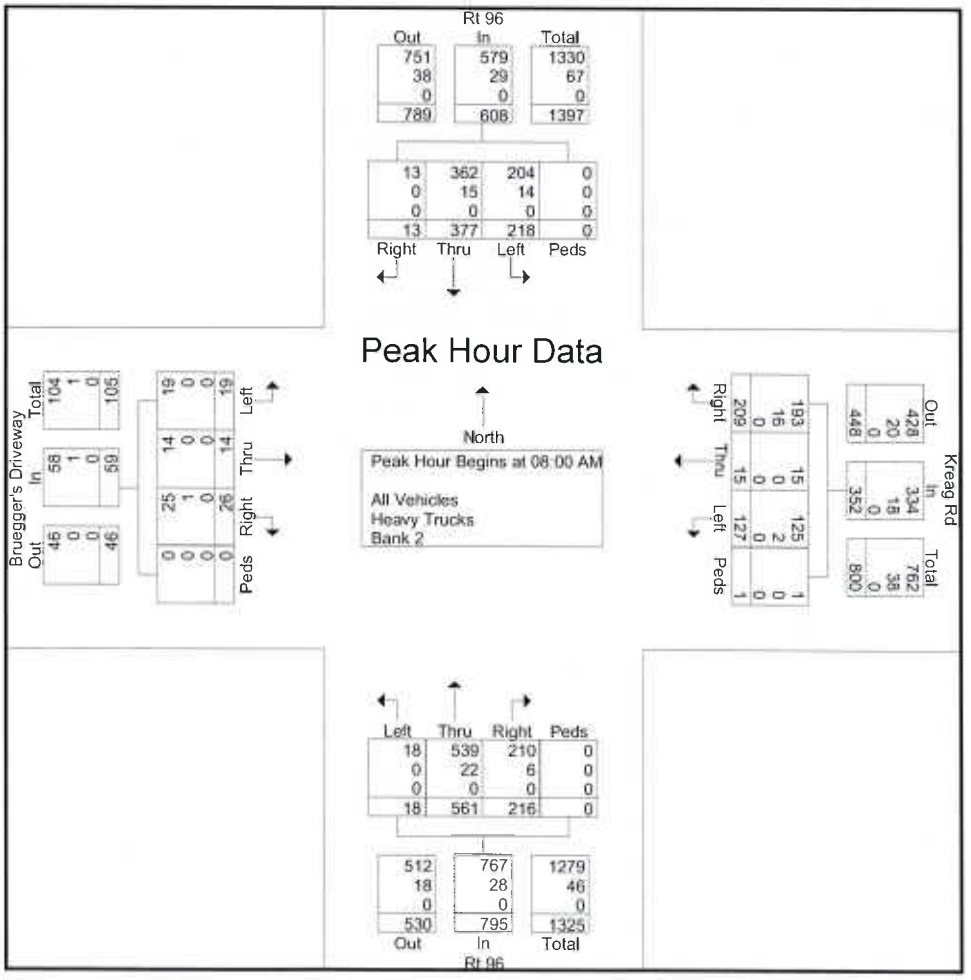
	Bruegger's Driveway Eastbound					Kreag Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	3	0	5	0	8	56	0	12	0	68	16	75	2	0	93	0	50	20	0	70	239
07:15 AM	4	1	4	0	9	54	1	11	0	66	34	127	2	0	163	4	50	41	0	95	333
07:30 AM	2	2	5	1	10	45	2	17	0	64	44	142	5	0	191	0	71	35	0	106	371
07:45 AM	8	4	2	1	15	55	3	22	0	80	61	132	6	0	199	0	107	62	0	169	463
Total	17	7	16	2	42	210	6	62	0	278	155	476	15	0	646	4	278	158	0	440	1406
08:00 AM	6	0	5	0	11	49	6	33	1	89	54	112	5	0	171	4	79	57	0	140	411
08:15 AM	8	7	6	0	21	64	4	33	0	101	73	136	3	0	212	4	96	46	0	146	480
08:30 AM	4	5	1	0	10	40	3	31	0	74	54	146	5	0	205	1	96	54	0	151	440
08:45 AM	8	2	7	0	17	56	2	30	0	88	35	167	5	0	207	4	106	61	0	171	483
Total	26	14	19	0	59	209	15	127	1	352	216	561	18	0	795	13	377	218	0	608	1814
Grand Total	43	21	35	2	101	419	21	189	1	630	371	1037	33	0	1441	17	655	376	0	1048	3220
Apprch %	42.6	20.8	34.7	2		66.5	3.3	30	0.2		25.7	72	2.3	0		1.6	62.5	35.9	0		
Total %	1.3	0.7	1.1	0.1	3.1	13	0.7	5.9	0	19.6	11.5	32.2	1	0	44.8	0.5	20.3	11.7	0	32.5	
All Vehicles	42	21	34	2	99	391	21	185	1	598	361	1003	33	0	1397	16	627	356	0	999	3093
% All Vehicles	97.7	100	97.1	100	98	93.3	100	97.9	100	94.9	97.3	96.7	100	0	96.9	94.1	95.7	94.7	0	95.3	96.1
Heavy Trucks	1	0	1	0	2	28	0	4	0	32	10	34	0	0	44	1	28	20	0	49	127
% Heavy Trucks	2.3	0	2.9	0	2	6.7	0	2.1	0	5.1	2.7	3.3	0	0	3.1	5.9	4.3	5.3	0	4.7	3.9
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Kreag AM
Site Code : 00200866
Start Date : 04/02/2025
Page No : 2

	Bruegger's Driveway Eastbound					Kreag Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	6	0	5	0	11	49	6	33	1	89	54	112	5	0	171	4	79	57	0	140	411
08:15 AM	8	7	6	0	21	64	4	33	0	101	73	136	3	0	212	4	96	46	0	146	480
08:30 AM	4	5	1	0	10	40	3	31	0	74	54	146	5	0	205	1	96	54	0	151	440
08:45 AM	8	2	7	0	17	56	2	30	0	88	35	167	5	0	207	4	106	61	0	171	483
Total Volume	26	14	19	0	59	209	15	127	1	352	216	561	18	0	795	13	377	218	0	608	1814
% App. Total	44.1	23.7	32.2	0		59.4	4.3	36.1	0.3		27.2	70.6	2.3	0		2.1	62	35.9	0		
PHF	.813	.500	.679	.000	.702	.816	.625	.962	.250	.871	.740	.840	.900	.000	.938	.813	.889	.893	.000	.889	.939
All Vehicles	25	14	19	0	58	193	15	125	1	334	210	539	18	0	767	13	362	204	0	579	1738
% All Vehicles	96.2	100	100	0	98.3	92.3	100	98.4	100	94.9	97.2	96.1	100	0	96.5	100	96.0	93.6	0	95.2	95.8
Heavy Trucks	1	0	0	0	1	16	0	2	0	18	6	22	0	0	28	0	15	14	0	29	76
% Heavy Trucks	3.8	0	0	0	1.7	7.7	0	1.6	0	5.1	2.8	3.9	0	0	3.5	0	4.0	6.4	0	4.8	4.2
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Kreag PM
Site Code : 00200866
Start Date : 04/02/2025
Page No : 1

Groups Printed- All Vehicles - Heavy Trucks - Bank 2

	Bruegger's Driveway Eastbound					Kreag Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
03:00 PM	1	0	0	0	1	43	0	24	0	67	63	138	1	0	202	0	101	46	0	147	417
03:15 PM	1	0	0	0	1	59	0	24	0	83	55	148	4	0	207	0	131	49	0	180	471
03:30 PM	0	0	1	0	1	51	0	24	0	75	51	147	0	0	198	0	104	71	0	175	449
03:45 PM	0	1	1	0	2	53	1	10	0	64	64	160	0	0	224	0	102	48	0	150	440
Total	2	1	2	0	5	206	1	82	0	289	233	593	5	0	831	0	438	214	0	652	1777
04:00 PM	1	0	0	0	1	45	1	20	0	66	58	163	0	0	221	1	96	58	0	155	443
04:15 PM	0	0	0	0	0	54	0	20	0	74	68	157	0	0	225	0	107	61	0	168	467
04:30 PM	0	0	0	0	0	70	0	36	0	106	47	140	1	0	188	0	104	68	0	172	466
04:45 PM	0	1	1	0	2	59	0	32	0	91	61	163	1	0	225	0	116	60	0	176	494
Total	1	1	1	0	3	228	1	108	0	337	234	623	2	0	859	1	423	247	0	671	1870
05:00 PM	0	0	2	0	2	73	0	26	0	99	56	166	0	0	222	0	120	51	0	171	494
05:15 PM	0	0	0	0	0	65	0	21	0	86	64	163	1	0	228	0	111	69	0	180	494
05:30 PM	0	2	1	0	3	66	1	18	0	85	49	155	2	0	206	0	109	66	0	175	469
05:45 PM	0	0	2	0	2	64	1	16	0	81	34	171	1	0	206	0	125	48	0	173	462
Total	0	2	5	0	7	268	2	81	0	351	203	655	4	0	862	0	465	234	0	699	1919
Grand Total	3	4	8	0	15	702	4	271	0	977	670	1871	11	0	2552	1	1326	695	0	2022	5566
Apprch %	20	26.7	53.3	0		71.9	0.4	27.7	0		26.3	73.3	0.4	0		0	65.6	34.4	0		
Total %	0.1	0.1	0.1	0	0.3	12.6	0.1	4.9	0	17.6	12	33.6	0.2	0	45.8	0	23.8	12.5	0	36.3	
All Vehicles	3	4	8	0	15	686	4	265	0	955	658	1840	11	0	2509	1	1302	673	0	1976	5455
% All Vehicles	100	100	100	0	100	97.7	100	97.8	0	97.7	98.2	98.3	100	0	98.3	100	98.2	96.8	0	97.7	98
Heavy Trucks	0	0	0	0	0	16	0	6	0	22	12	31	0	0	43	0	24	22	0	46	111
% Heavy Trucks	0	0	0	0	0	2.3	0	2.2	0	2.3	1.8	1.7	0	0	1.7	0	1.8	3.2	0	2.3	2
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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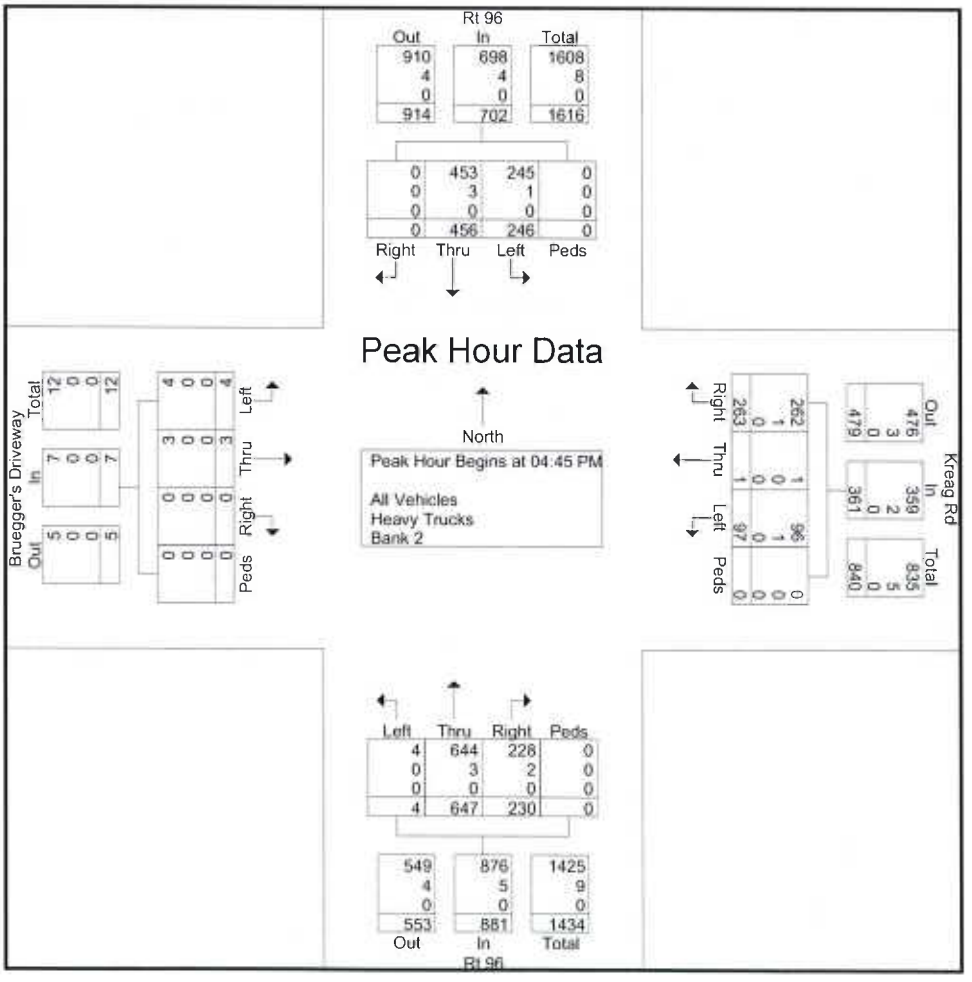
242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Kreag PM
Site Code : 00200866
Start Date : 04/02/2025
Page No : 2

	Bruegger's Driveway Eastbound					Kreag Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	1	1	0	2	59	0	**32**	0	91	61	163	1	0	225	0	116	60	0	176	**494**
05:00 PM	0	0	**2**	0	2	**73**	0	26	0	**99**	56	**166**	0	0	222	0	**120**	51	0	171	494
05:15 PM	0	0	0	0	0	65	0	21	0	86	**64**	163	1	0	**228**	0	111	**69**	0	**180**	494
05:30 PM	0	**2**	1	0	**3**	66	**1**	18	0	85	49	155	**2**	0	206	0	109	66	0	175	469
Total Volume	0	3	4	0	7	263	1	97	0	361	230	647	4	0	881	0	456	246	0	702	1951
% App. Total	0	42.9	57.1	0		72.9	0.3	26.9	0		26.1	73.4	0.5	0		0	65	35	0		
PHF	.000	.375	.500	.000	.583	.901	.250	.758	.000	.912	.898	.974	.500	.000	.966	.000	.950	.891	.000	.975	.987
All Vehicles	0	3	4	0	7	262	1	96	0	359	228	644	4	0	876	0	453	245	0	698	1940
% All Vehicles	0	100	100	0	100	99.6	100	99.0	0	99.4	99.1	99.5	100	0	99.4	0	99.3	99.6	0	99.4	99.4
Heavy Trucks	0	0	0	0	0	1	0	1	0	2	2	3	0	0	5	0	3	1	0	4	11
% Heavy Trucks	0	0	0	0	0	0.4	0	1.0	0	0.6	0.9	0.5	0	0	0.6	0	0.7	0.4	0	0.6	0.6
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Marsh AM
Site Code : 00200876
Start Date : 04/02/2025
Page No : 1

Groups Printed- All Vehicles - Heavy Trucks - Bank 2

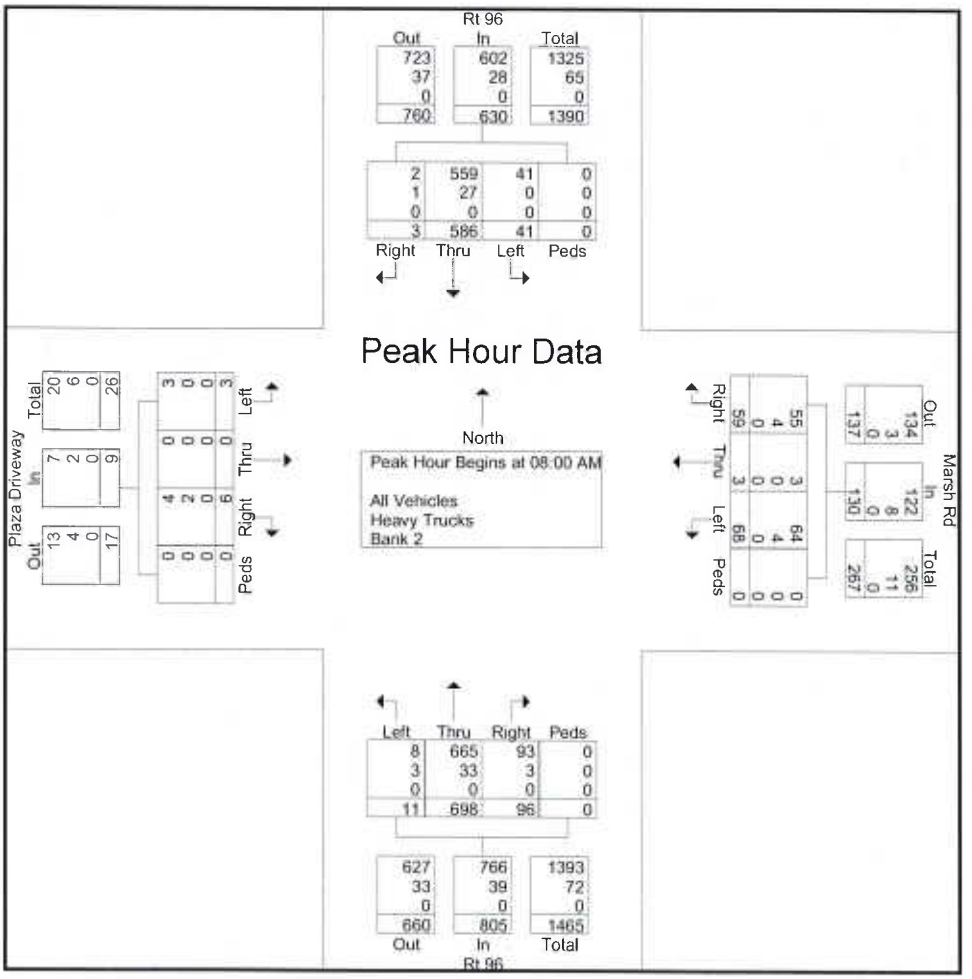
	Plaza Driveway Eastbound					Marsh Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	13	0	8	0	21	5	139	0	0	144	0	76	10	0	86	251
07:15 AM	1	0	0	0	1	10	0	8	0	18	23	167	0	0	190	0	95	2	0	97	306
07:30 AM	0	0	0	1	1	14	1	16	0	31	32	159	0	0	191	0	102	12	1	115	338
07:45 AM	2	0	0	1	3	15	1	23	0	39	21	177	3	1	202	0	159	10	0	169	413
Total	3	0	0	2	5	52	2	55	0	109	81	642	3	1	727	0	432	34	1	467	1308
08:00 AM	0	0	1	0	1	17	0	16	0	33	27	137	1	0	165	0	133	6	0	139	338
08:15 AM	1	0	1	0	2	17	0	14	0	31	20	190	3	0	213	1	142	10	0	153	399
08:30 AM	3	0	0	0	3	16	0	15	0	31	25	166	5	0	196	2	162	13	0	177	407
08:45 AM	2	0	1	0	3	9	3	23	0	35	24	205	2	0	231	0	149	12	0	161	430
Total	6	0	3	0	9	59	3	68	0	130	96	698	11	0	805	3	586	41	0	630	1574
Grand Total	9	0	3	2	14	111	5	123	0	239	177	1340	14	1	1532	3	1018	75	1	1097	2882
Apprch %	64.3	0	21.4	14.3		46.4	2.1	51.5	0		11.6	87.5	0.9	0.1		0.3	92.8	6.8	0.1		
Total %	0.3	0	0.1	0.1	0.5	3.9	0.2	4.3	0	8.3	6.1	46.5	0.5	0	53.2	0.1	35.3	2.6	0	38.1	
All Vehicles	7	0	3	2	12	104	5	116	0	225	170	1289	11	1	1471	2	972	73	1	1048	2756
% All Vehicles	77.8	0	100	100	85.7	93.7	100	94.3	0	94.1	96	96.2	78.6	100	96	66.7	95.5	97.3	100	95.5	95.6
Heavy Trucks	2	0	0	0	2	7	0	7	0	14	7	51	3	0	61	1	46	2	0	49	126
% Heavy Trucks	22.2	0	0	0	14.3	6.3	0	5.7	0	5.9	4	3.8	21.4	0	4	33.3	4.5	2.7	0	4.5	4.4
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Marsh AM
Site Code : 00200876
Start Date : 04/02/2025
Page No : 2

	Plaza Driveway Eastbound					Marsh Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	**1**	0	1	**17**	0	16	0	33	**27**	137	1	0	165	0	133	6	0	139	338
08:15 AM	1	0	1	0	2	17	0	14	0	31	20	190	3	0	213	1	142	10	0	153	399
08:30 AM	**3**	0	0	0	**3**	16	0	15	0	31	25	166	**5**	0	196	**2**	**162**	**13**	0	**177**	407
08:45 AM	2	0	1	0	3	9	**3**	**23**	0	**35**	24	**205**	2	0	**231**	0	149	12	0	161	**430**
Total Volume	6	0	3	0	9	59	3	68	0	130	96	698	11	0	805	3	586	41	0	630	1574
% App. Total	66.7	0	33.3	0		45.4	2.3	52.3	0		11.9	86.7	1.4	0		0.5	93	6.5	0		
PHF	.500	.000	.750	.000	.750	.868	.250	.739	.000	.929	.889	.851	.550	.000	.871	.375	.904	.788	.000	.890	.915
All Vehicles	4	0	3	0	7	55	3	64	0	122	93	665	8	0	766	2	559	41	0	602	1497
% All Vehicles	66.7	0	100	0	77.8	93.2	100	94.1	0	93.8	96.9	95.3	72.7	0	95.2	66.7	95.4	100	0	95.6	95.1
Heavy Trucks	2	0	0	0	2	4	0	4	0	8	3	33	3	0	39	1	27	0	0	28	77
% Heavy Trucks	33.3	0	0	0	22.2	6.8	0	5.9	0	6.2	3.1	4.7	27.3	0	4.8	33.3	4.6	0	0	4.4	4.9
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Marsh PM
Site Code : 00200876
Start Date : 04/02/2025
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Groups Printed- All Vehicles - Heavy Trucks - Bank 2

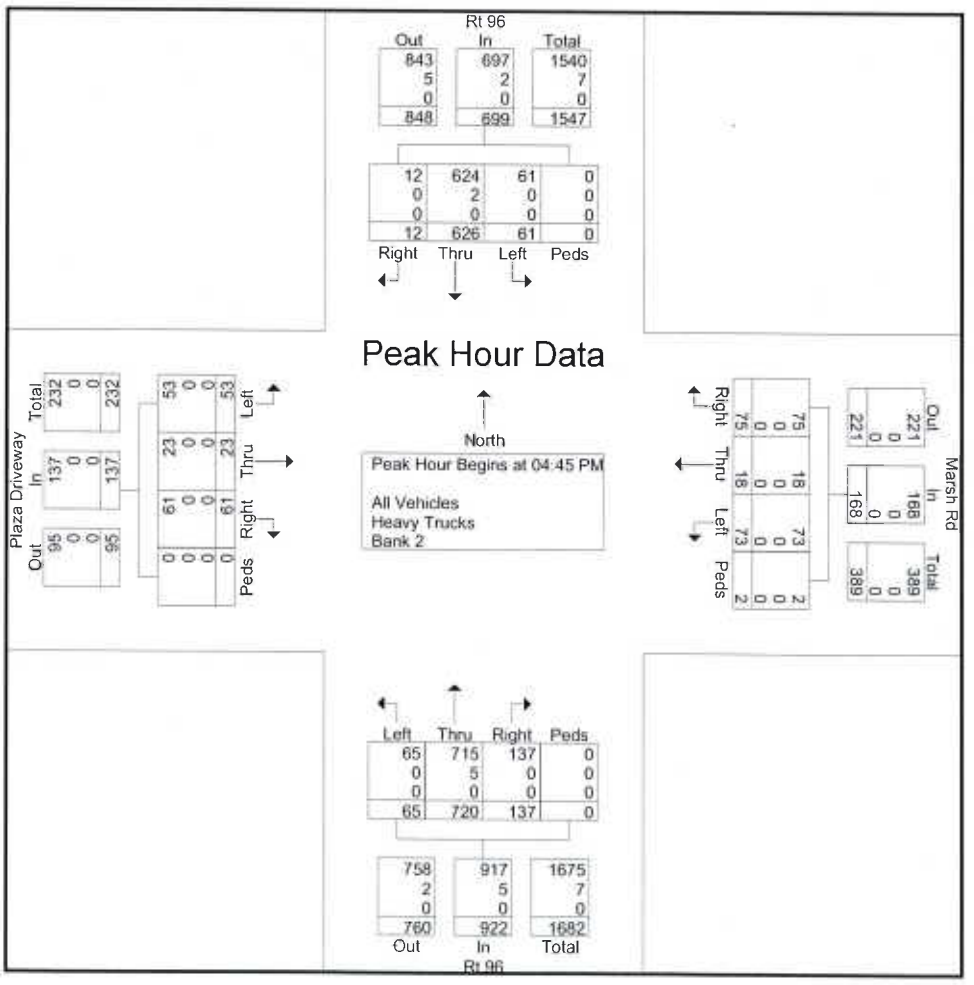
	Plaza Driveway Eastbound					Marsh Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	5	4	6	0	15	18	0	13	0	31	20	152	9	0	181	1	136	14	0	151	378
03:15 PM	9	3	10	0	22	20	2	17	0	39	37	162	11	0	210	1	158	16	0	175	446
03:30 PM	13	2	5	0	20	12	5	18	0	35	30	168	8	0	206	2	152	17	0	171	432
03:45 PM	8	2	8	0	18	13	6	17	0	36	31	173	11	0	215	2	132	9	0	143	412
Total	35	11	29	0	75	63	13	65	0	141	118	655	39	0	812	6	578	56	0	640	1668
04:00 PM	4	5	10	0	19	8	1	15	0	24	28	169	11	0	208	1	145	17	0	163	414
04:15 PM	11	3	8	0	22	21	4	7	0	32	38	158	8	0	204	2	163	11	0	176	434
04:30 PM	9	2	10	0	21	12	7	18	0	37	38	169	7	0	214	0	152	20	0	172	444
04:45 PM	16	6	19	0	41	23	7	21	0	51	29	179	18	0	226	2	156	10	0	168	486
Total	40	16	47	0	103	64	19	61	0	144	133	675	44	0	852	5	616	58	0	679	1778
05:00 PM	20	6	13	0	39	19	1	12	0	32	38	191	15	0	244	4	153	11	0	168	483
05:15 PM	13	6	13	0	32	19	4	19	0	42	35	185	17	0	237	1	167	21	0	189	500
05:30 PM	12	5	8	0	25	14	6	21	2	43	35	165	15	0	215	5	150	19	0	174	457
05:45 PM	23	4	16	0	43	15	3	17	0	35	28	178	19	0	225	7	145	11	0	163	466
Total	68	21	50	0	139	67	14	69	2	152	136	719	66	0	921	17	615	62	0	694	1906
Grand Total	143	48	126	0	317	194	46	195	2	437	387	2049	149	0	2585	28	1809	176	0	2013	5352
Apprch %	45.1	15.1	39.7	0		44.4	10.5	44.6	0.5		15	79.3	5.8	0		1.4	89.9	8.7	0		
Total %	2.7	0.9	2.4	0	5.9	3.6	0.9	3.6	0	8.2	7.2	38.3	2.8	0	48.3	0.5	33.8	3.3	0	37.6	
All Vehicles	143	46	126	0	315	189	46	185	2	422	381	2009	149	0	2539	28	1775	168	0	1971	5247
% All Vehicles	100	95.8	100	0	99.4	97.4	100	94.9	100	96.6	98.4	98	100	0	98.2	100	98.1	95.5	0	97.9	98
Heavy Trucks	0	0	0	0	0	5	0	10	0	15	6	40	0	0	46	0	34	8	0	42	103
% Heavy Trucks	0	0	0	0	0	2.6	0	5.1	0	3.4	1.6	2	0	0	1.8	0	1.9	4.5	0	2.1	1.9
Bank 2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Bank 2	0	4.2	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Marsh PM
Site Code : 00200876
Start Date : 04/02/2025
Page No : 2

	Plaza Driveway Eastbound					Marsh Rd Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	16	**6**	**19**	0	**41**	**23**	**7**	**21**	0	**51**	29	179	**18**	0	226	2	156	10	0	168	486
05:00 PM	**20**	6	13	0	39	19	1	12	0	32	**38**	**191**	15	0	**244**	4	153	11	0	168	483
05:15 PM	13	6	13	0	32	19	4	19	0	42	35	185	17	0	237	1	**167**	**21**	0	**189**	**500**
05:30 PM	12	5	8	0	25	14	6	21	**2**	43	35	165	15	0	215	**5**	150	19	0	174	457
Total Volume	61	23	53	0	137	75	18	73	2	168	137	720	65	0	922	12	626	61	0	699	1926
% App. Total	44.5	16.8	38.7	0		44.6	10.7	43.5	1.2		14.9	78.1	7	0		1.7	89.6	8.7	0		
PHF	.763	.958	.697	.000	.835	.815	.643	.869	.250	.824	.901	.942	.903	.000	.945	.600	.937	.726	.000	.925	.963
All Vehicles	61	23	53	0	137	75	18	73	2	168	137	715	65	0	917	12	624	61	0	697	1919
% All Vehicles	100	100	100	0	100	100	100	100	100	100	100	99.3	100	0	99.5	100	99.7	100	0	99.7	99.6
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	2	0	0	2	7
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.5	0	0.3	0	0	0.3	0.4
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



PASSERO ASSOCIATES

242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Thornell AM
Site Code : 00200870
Start Date : 04/02/2025
Page No : 1

Groups Printed- All Vehicles - Heavy Trucks - Bank 2

	Thornell Rd Eastbound					Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
07:00 AM	36	0	10	0	46	0	0	0	0	0	0	93	57	0	150	0	49	0	0	49	245
07:15 AM	52	0	5	0	57	0	0	0	0	0	0	114	56	0	170	2	44	0	0	46	273
07:30 AM	56	0	12	0	68	0	0	0	0	0	0	139	32	0	171	3	67	0	0	70	309
07:45 AM	67	0	8	0	75	0	0	0	0	0	0	152	45	0	197	6	98	0	0	104	376
Total	211	0	35	0	246	0	0	0	0	0	0	498	190	0	688	11	258	0	0	269	1203
08:00 AM	79	0	11	0	90	0	0	0	0	0	0	93	49	0	142	2	60	0	0	62	294
08:15 AM	66	0	12	0	78	0	0	0	0	0	0	151	62	0	213	1	86	0	0	87	378
08:30 AM	78	0	6	0	84	0	0	0	0	0	0	144	39	0	183	4	110	0	0	114	381
08:45 AM	50	1	9	0	60	0	0	0	0	0	0	177	37	0	214	9	106	0	0	115	389
Total	273	1	38	0	312	0	0	0	0	0	0	565	187	0	752	16	362	0	0	378	1442
Grand Total	484	1	73	0	558	0	0	0	0	0	0	1063	377	0	1440	27	620	0	0	647	2645
Apprch %	86.7	0.2	13.1	0		0	0	0	0		0	73.8	26.2	0		4.2	95.8	0	0		
Total %	18.3	0	2.8	0	21.1	0	0	0	0	0	0	40.2	14.3	0	54.4	1	23.4	0	0	24.5	
All Vehicles	466	1	72	0	539	0	0	0	0	0	0	1027	355	0	1382	25	587	0	0	612	2533
% All Vehicles	96.3	100	98.6	0	96.6	0	0	0	0	0	0	96.6	94.2	0	96	92.6	94.7	0	0	94.6	95.8
Heavy Trucks	18	0	1	0	19	0	0	0	0	0	0	36	22	0	58	2	33	0	0	35	112
% Heavy Trucks	3.7	0	1.4	0	3.4	0	0	0	0	0	0	3.4	5.8	0	4	7.4	5.3	0	0	5.4	4.2
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Thornell AM
Site Code : 00200870
Start Date : 04/02/2025
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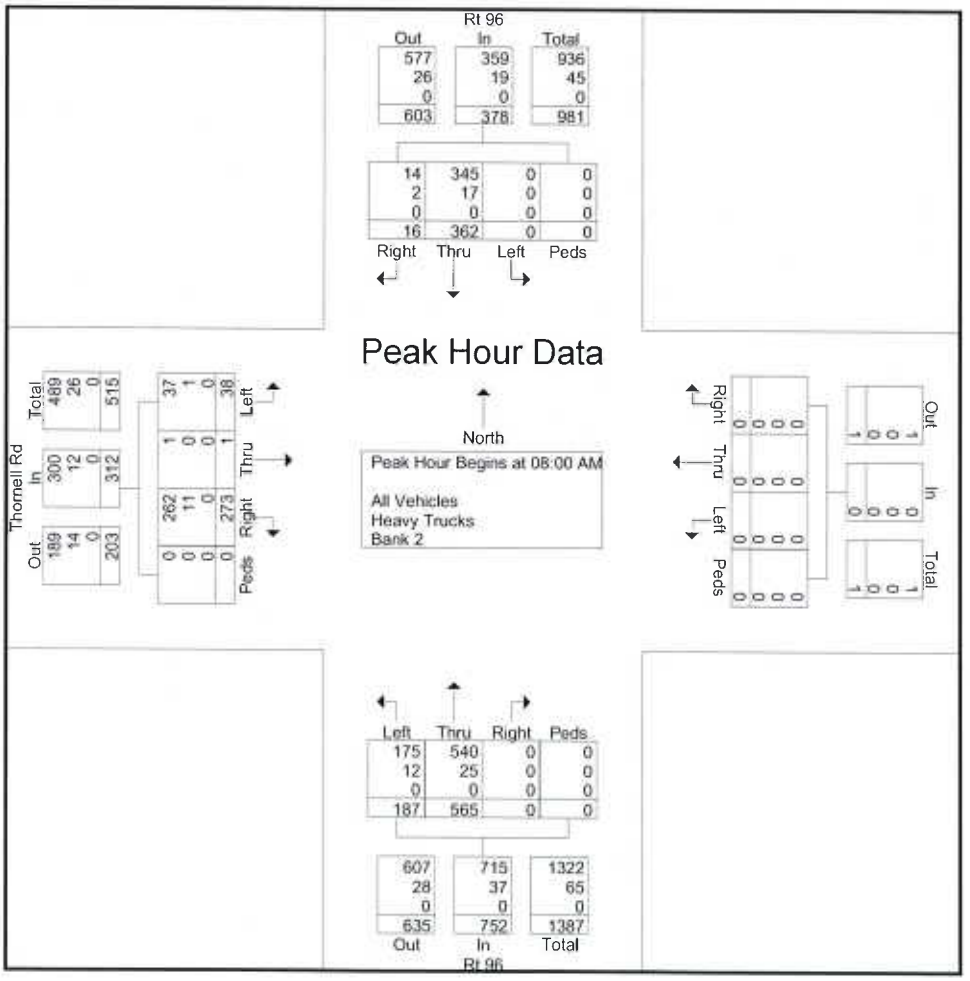
	Thornell Rd Eastbound					Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Right	Thru	Left	Peds	App Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 08:00 AM																				
08:00 AM	**79**	0	11	0	**90**	0	0	0	0	0	0	93	49	0	142	2	60	0	0	62	294
08:15 AM	66	0	**12**	0	78	0	0	0	0	0	0	**151**	**62**	0	213	1	86	0	0	87	378
08:30 AM	78	0	6	0	84	0	0	0	0	0	0	144	39	0	183	4	**110**	0	0	114	381
08:45 AM	50	**1**	9	0	60	0	0	0	0	0	0	**177**	37	0	**214**	**9**	106	0	0	**115**	**389**
Total Volume	273	1	38	0	312	0	0	0	0	0	0	565	187	0	752	16	362	0	0	378	1442
% App. Total	87.5	0.3	12.2	0		0	0	0	0		0	75.1	24.9	0		4.2	95.8	0	0		
PHF	.864	.250	.792	.000	.867	.000	.000	.000	.000	.000	.000	.798	.754	.000	.879	.444	.823	.000	.000	.822	.927
All Vehicles	262	1	37	0	300	0	0	0	0	0	0	540	175	0	715	14	345	0	0	359	1374
% All Vehicles	96.0	100	97.4	0	96.2	0	0	0	0	0	0	95.6	93.6	0	95.1	87.5	95.3	0	0	95.0	95.3
Heavy Trucks	11	0	1	0	12	0	0	0	0	0	0	25	12	0	37	2	17	0	0	19	68
% Heavy Trucks	4.0	0	2.6	0	3.8	0	0	0	0	0	0	4.4	6.4	0	4.9	12.5	4.7	0	0	5.0	4.7
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Thornell PM
Site Code : 00200870
Start Date : 04/02/2025
Page No : 1

Groups Printed- All Vehicles - Heavy Trucks - Bank 2

	Thornell Rd Eastbound					Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
03:00 PM	49	0	1	0	50	0	0	0	0	0	0	122	50	0	172	4	112	0	0	116	338
03:15 PM	71	0	4	0	75	0	0	0	0	0	0	124	75	0	199	6	117	0	0	123	397
03:30 PM	60	0	2	0	62	0	0	0	0	0	0	137	50	0	187	8	113	0	0	121	370
03:45 PM	51	0	2	0	53	0	0	0	0	0	0	138	53	0	191	7	97	0	0	104	348
Total	231	0	9	0	240	0	0	0	0	0	0	521	228	0	749	25	439	0	0	464	1453
04:00 PM	65	0	2	0	67	0	0	0	0	0	0	126	58	0	184	5	100	0	0	105	356
04:15 PM	66	0	1	0	67	0	0	0	0	0	0	135	56	0	191	7	113	0	0	120	378
04:30 PM	66	0	5	0	71	0	0	0	0	0	0	124	57	0	181	4	114	0	0	118	370
04:45 PM	60	0	8	0	68	0	0	0	0	0	0	153	72	0	225	5	133	0	0	138	431
Total	257	0	16	0	273	0	0	0	0	0	0	538	243	0	781	21	460	0	0	481	1535
05:00 PM	61	0	2	0	63	0	0	0	0	0	0	149	76	0	225	9	115	0	0	124	412
05:15 PM	80	0	4	0	84	0	0	0	0	0	0	158	56	0	214	8	121	0	0	129	427
05:30 PM	70	0	5	0	75	0	0	0	0	0	0	136	48	184	368	9	107	0	0	116	559
05:45 PM	60	0	6	0	66	0	0	0	0	0	0	153	65	0	218	14	109	0	0	123	407
Total	271	0	17	0	288	0	0	0	0	0	0	596	245	184	1025	40	452	0	0	492	1805
Grand Total	759	0	42	0	801	0	0	0	0	0	0	1655	716	184	2555	86	1351	0	0	1437	4793
Apprch %	94.8	0	5.2	0		0	0	0	0		0	64.8	28	7.2		6	94	0	0		
Total %	15.8	0	0.9	0	16.7	0	0	0	0	0	0	34.5	14.9	3.8	53.3	1.8	28.2	0	0	30	
All Vehicles	741	0	41	0	782	0	0	0	0	0	0	1620	704	0	2324	84	1325	0	0	1409	4515
% All Vehicles	97.6	0	97.6	0	97.6	0	0	0	0	0	0	97.9	98.3	0	91	97.7	98.1	0	0	98.1	94.2
Heavy Trucks	18	0	1	0	19	0	0	0	0	0	0	35	12	184	231	2	26	0	0	28	278
% Heavy Trucks	2.4	0	2.4	0	2.4	0	0	0	0	0	0	2.1	1.7	100	9	2.3	1.9	0	0	1.9	5.8
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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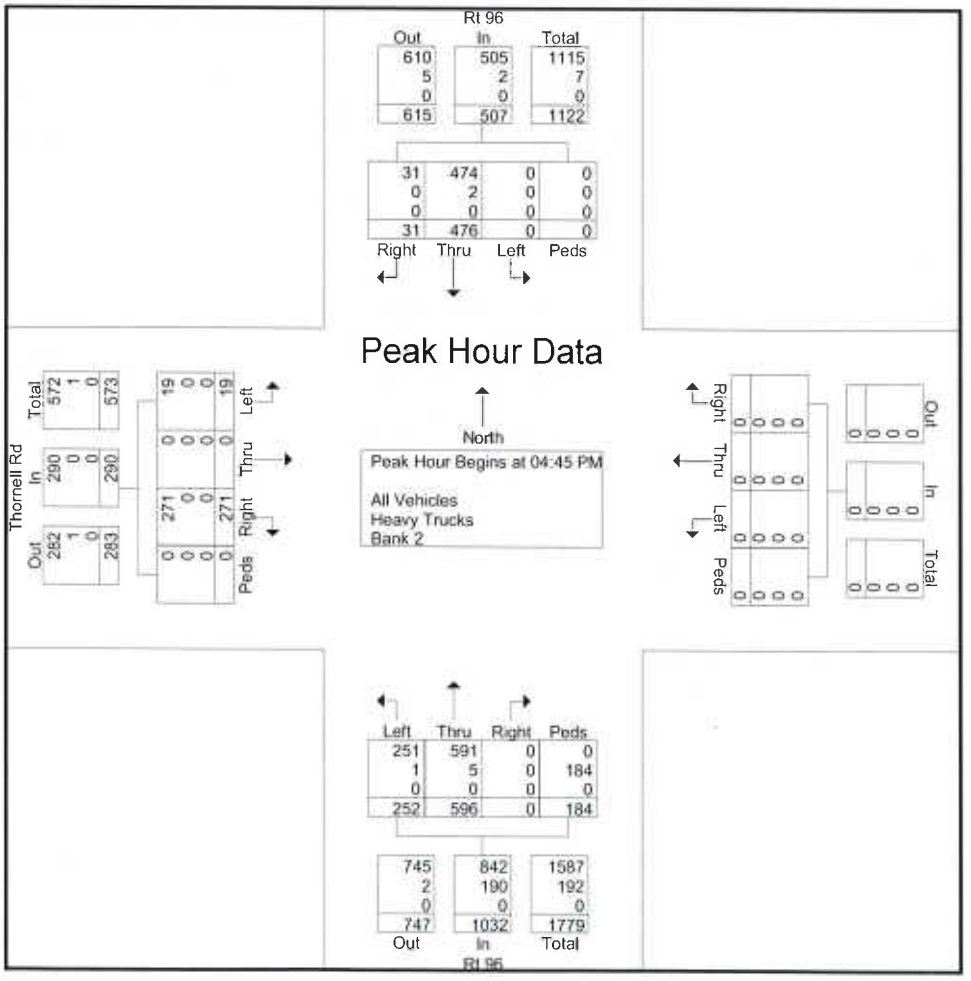
242 West Main Street, Suite 100, Rochester, NY 14614

File Name : Rt 96 & Thornell PM
Site Code : 00200870
Start Date : 04/02/2025
Page No : 2

	Thornell Rd Eastbound					Westbound					Rt 96 Northbound					Rt 96 Southbound					
Start Time	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
Peak Hour Analysis From 03:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	60	0	**8**	0	68	0	0	0	0	0	0	153	72	0	225	5	**133**	0	0	**138**	431
05:00 PM	61	0	2	0	63	0	0	0	0	0	0	149	**76**	0	225	**9**	115	0	0	124	412
05:15 PM	**80**	0	4	0	**84**	0	0	0	0	0	0	**158**	56	0	214	8	121	0	0	129	427
05:30 PM	70	0	5	0	75	0	0	0	0	0	0	136	48	**184**	**368**	9	107	0	0	116	**559**
Total Volume	271	0	19	0	290	0	0	0	0	0	0	596	252	184	1032	31	476	0	0	507	1829
% App Total	93.4	0	6.6	0		0	0	0	0		0	57.8	24.4	17.8		6.1	93.9	0	0		
PHF	.847	.000	.594	.000	.863	.000	.000	.000	.000	.000	.000	.943	.829	.250	.701	.861	.895	.000	.000	.918	.818
All Vehicles	271	0	19	0	290	0	0	0	0	0	0	591	251	0	842	31	474	0	0	505	1637
% All Vehicles	100	0	100	0	100	0	0	0	0	0	0	99.2	99.6	0	81.6	100	99.6	0	0	99.6	89.5
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	5	1	184	190	0	2	0	0	2	192
% Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0.8	0.4	100	18.4	0	0.4	0	0	0.4	10.5
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



APPENDIX B: MISCELLANEOUS CALCULATIONS

Documentation of Ambient Traffic Volume Growth

Project: **Hartwell Heights**
Location **NY-96 & Thornell Road, Town of Perinton, NY**

Roadway	From	To	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Annual Growth	2021-2023 Growth
NY-96	Marsh Road	Thornell Road	16,511	17,497	17,465	18,776	18,786	18,319	15,563	16,799	16,369	18,187	-0.11%	4.05%
NY-96	Kreag Road	I-490	17,355	17,311	17,268	17,743	17,753	16,019	13,609	14,690	14,618	15,904	-3.80%	4.05%
Kreag Road	NY-96	NY-31	7,972	8,111	8,090	8,069	8,544	8,544	8,455	9,127	8,911	7,942	-0.26%	-6.72%
Thornell Road	NY-96	Pittsford TL	6,804	6,722	6,900	6,807	6,797	7,018	6,128	6,525	5,087	6,949	-4.95%	3.20%
												Average	-2.28%	1.14%

Counts shown in orange are estimated. Annual Growth only considers actual counts.

Sources

Traffic Counts in New York
NYSDOT Traffic Data Viewer

NY-96 at Proposed Access - AM
Eastbound (2 Lanes)

Start Time	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	>29	Int. Total	Average
8:00:00 AM	13	10	10	6	3	0	6	1	0	2	2	0	0	0	0	53	6-7
8:15:00 AM	20	14	9	6	4	1	4	2	2	1	1	0	0	1	2	67	4-5
8:30:00 AM	17	16	10	3	3	2	2	0	2	2	1	3	0	0	0	61	4-5
8:45:00 AM	18	13	10	6	7	4	3	1	0	0	0	2	1	0	3	68	6-7
Grand Total	68	53	39	21	17	7	15	4	4	5	4	5	1	1	5	249	6-7

Right-out	*Headways*		6.2	9.5		12.8		16.1	19.4		22.7		26				
tc = 6.2	*% of Gap*		0.9	0.75		0.4		0.05	0.7		0.35		0				
tf = 3.3			35.1	15.75													
				5.25	17	2.8											
						4.2	15	0.2									
								3.8	2.8								
									1.2	5	1.4						
											2.6	5	0				
													1	1	5		
	# of Gaps			**50.85**		**25.05**		**19.40**		**6.60**		**7.60**		**7.60**			
Left-in	*Headways*	4.1	6.3	8.5	10.7	12.9	15.1	17.3	19.5	21.7	23.9		26.1	28.3			
tc = 4.1	*% of Gap*	0.95	0.15	0.25	0.35	0.45	0.55	0.65	0.75	0.85	0.95		0.05	0.15			
tf = 2.2		50.35	5.85														
			33.15	5.25													
				15.75	5.95												
					11.05	3.15											
						3.85	8.25										
							6.75	2.6									
								1.4	3								
									1	4.25							
										0.75	3.8						
											0.2	5	0.05				
													0.95	0.15			
														0.85	5		
	# of Gaps	**56.20**	**38.40**	**21.70**	**14.20**	**12.10**	**9.35**	**4.40**	**5.25**	**4.55**		**5.25**	**1.10**	**5.85**			

NY-96 at Proposed Access - AM
Combined Directions (2 Lanes)

Start Time	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	>29	Int. Total	Average
8:00:00 AM	28	10	9	4	0	0	1	1	0	0	0	0	0	0	0	53	2-3
8:15:00 AM	38	21	7	3	1	2	0	0	1	0	0	0	0	0	0	73	2-3
8:30:00 AM	47	18	5	1	2	3	0	0	0	1	0	0	0	0	0	77	2-3
8:45:00 AM	44	16	6	6	1	4	0	0	0	0	0	0	0	0	0	77	2-3
Grand Total	157	65	27	14	4	9	1	1	1	1	0	0	0	0	0	280	2-3

Left-out	*Headways*		7.1		10.6		14.1	17.6		21.1		24.6		28.1			
tc = 7.1	*% of Gap*		0.55		0.3		0.05	0.8		0.55		0.3		0.05			
tf = 3.5			14.85	14	1												
					3	9	0.05										
							0.95	0.8									
								0.2	1	0.55							
										0.45	0	0					
												0	0	0			
														0	0		
	# of Gaps			**30.05**		**11.85**		**1.75**		**1.75**		**0.45**		**0.00**		**0.00**	

NY-96 at Proposed Access - PM
Eastbound (2 Lanes)

Start Time	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	>29	Int. Total	Average
4:45:00 PM	28	21	6	8	5	2	1	2	2	1	1	1	0	0	0	78	4-5
5:00:00 PM	20	22	6	7	12	1	2	2	1	0	1	0	1	0	1	76	4-5
5:15:00 PM	26	20	8	4	3	2	2	3	2	0	1	0	0	0	0	71	4-5
5:30:00 PM	29	14	7	5	5	4	3	1	4	0	0	0	0	0	1	73	4-5
Grand Total	103	77	27	24	25	9	8	8	9	1	3	1	1	0	2	298	4-5

Right-out	*Headways*		6.2	9.5		12.8		16.1	19.4		22.7		26				
tc = 6.2	*% of Gap*		0.9	0.75		0.4		0.05	0.7		0.35		0				
tf = 3.3			24.3	18													
				6	25	3.6											
						5.4	8	0.4									
								7.6	6.3								
									2.7	1	1.05						
											1.95	1	0				
													1	0	2		
	# of Gaps		**42.3**		**34.60**		**13.80**		**13.90**		**4.75**		**2.95**		**3.00**		
Left-in	*Headways*	4.1	6.3	8.5	10.7	12.9	15.1	17.3	19.5	21.7	23.9		26.1	28.3			
tc = 4.1	*% of Gap*	0.95	0.15	0.25	0.35	0.45	0.55	0.65	0.75	0.85	0.95		0.05	0.15			
tf = 2.2		73.15	4.05														
			22.95	6													
				18	8.75												
					16.25	4.05											
						4.95	4.4										
							3.6	5.2									
								2.8	6.75								
									2.25	0.85							
										0.15	2.85						
											0.15	1	0.05				
													0.95	0			
														0	2		
	# of Gaps	**77.20**	**28.95**	**26.75**	**20.30**	**9.35**	**8.80**	**9.55**	**3.10**	**3.00**		**1.20**	**0.95**	**2.00**			

NY-96 at Proposed Access - PM
Combined Directions (2 Lanes)

Start Time	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22-23	24-25	26-27	28-29	>29	Int. Total	Average
4:45:00 PM	59	13	4	6	1	1	0	0	0	0	0	0	0	0	0	84	2-3
5:00:00 PM	54	24	6	4	1	0	0	0	0	0	0	0	0	0	0	89	2-3
5:15:00 PM	43	14	8	0	3	0	0	0	0	0	0	0	0	0	0	68	2-3
5:30:00 PM	53	16	7	2	0	1	1	0	0	0	0	0	0	0	0	80	2-3
Grand Total	209	67	25	12	5	2	1	0	0	0	0	0	0	0	0	321	2-3

Left-out	*Headways*		7.1		10.6		14.1	17.6		21.1		24.6		28.1			
tc = 7.1	*% of Gap*		0.55		0.3		0.05	0.8		0.55		0.3		0.05			
tf = 3.5			13.75	12	2												
					4	2	0.05										
							0.95	0									
								0	0	0							
										0	0	0					
												0	0	0			
														0	0		
	# of Gaps			**27.25**		**5.55**	**0.95**		**0.00**		**0.00**		**0.00**		**0.00**		

Step 4: Determine Critical Headways and Follow-Up Headways

The critical headways $t_{c,x}$ and follow-up headways $t_{f,x}$ must be determined for the major-street left turns ($v_{c,1}$ and $v_{c,4}$), the minor-street right turns ($v_{c,9}$ and $v_{c,12}$), the major-street U-turns ($v_{c,1U}$ and $v_{c,4U}$), the minor-street through movements ($v_{c,8}$ and $v_{c,11}$), and the minor-street left turns ($v_{c,7}$ and $v_{c,10}$) as they occur at a TWSC intersection.

To compute the critical headways for each movement, the analyst begins with the base critical headway given in Exhibit 20-17 and makes movement-specific adjustments relating to the percentage of heavy vehicles, the grade encountered, and a three-leg versus four-leg intersection as shown in Equation 20-16.

$$t_{c,x} = t_{c,\text{base}} + t_{c,HV}P_{HV} + t_{c,G}G - t_{3,LT}$$

where

$t_{c,x}$ = critical headway for movement x (s);

$t_{c,\text{base}}$ = base critical headway from Exhibit 20-17 (s);

$t_{c,HV}$ = adjustment factor for heavy vehicles (1.0 for major streets with one lane in each direction; 2.0 for major streets with two or three lanes in each direction) (s);

P_{HV} = proportion of heavy vehicles for movement (expressed as a decimal; e.g., $P_{HV} = 0.02$ for 2% heavy vehicles);

$t_{c,G}$ = adjustment factor for grade for given movement (0.1 for Movements 9 and 12; 0.2 for Movements 7, 8, 10, and 11) (s);

G = percentage grade (expressed as an integer; e.g., $G = -2$ for a 2% downhill grade); and

$t_{3,LT}$ = adjustment factor for intersection geometry (0.7 for minor-street left-turn movement at three-leg intersections; 0.0 otherwise) (s).

Vehicle Movement	Base Critical Headway, $t_{c,\text{base}}$ (s)		
	Two Lanes	Four Lanes	Six Lanes
Left turn from major street	4.1	4.1	5.3
U-turn from major street	NA	6.4 (wide)[a] 6.9 (narrow)[a]	5.6
Right turn from minor street	6.2	6.9	7.1
Through traffic on minor street	1 stage: 6.5 2 stage, Stage I: 5.5 2 stage, Stage II: 5.5	1 stage: 6.5 2 stage, Stage I: 5.5 2 stage, Stage II: 5.5	1 stage: 6.5[b] 2 stage, Stage I: 5.5[b] 2 stage, Stage II: 5.5[b]
Left turn from minor street	1 stage: 7.1 2 stage, Stage I: 6.1 2 stage, Stage II: 6.1	1 stage: 7.5 2 stage, Stage I: 6.5 2 stage, Stage II: 6.5	1 stage: 6.4 2 stage, Stage I: 7.3 2 stage, Stage II: 6.7

Notes: NA = not available.
[a] Narrow U-turns have a median nose width <21 ft; wide U-turns have a median nose width ≥21 ft.
[b] Use caution; values estimated.

Vehicle Movement	Base Follow-Up Headway, $t_{f,\text{base}}$ (s)		
	Two Lanes	Four Lanes	Six Lanes
Left turn from major street	2.2	2.2	3.1
U-turn from major street	NA	2.5 (wide)[a] 3.1 (narrow)[a]	2.3
Right turn from minor street	3.3	3.3	3.9
Through traffic on minor street	4.0	4.0	4.0
Left turn from minor street	3.5	3.5	3.8

Notes: NA = not available.
[a] Narrow U-turns have a median nose width <21 ft; wide U-turns have a median nose width ≥21 ft.

Hartwell Heights
Town of Perinton, NY

Major Roadway: NY-96
Minor Roadway: Proposed Access
Lanes: 2
3 or 4 Legs: 3
Movement: **Left Turn FROM Major Roadway**

AM Peak Hour # of one-way gaps (in seconds) between:

4.1	6.3	8.5	10.7	12.9	15.1	17.3	19.5	21.7	23.9	26.1	28.3	or greater	Left Turn Capacity
56													56
	38												76
		21											63
			14										56
				12									60
					9								54
						4							28
							5						40
								4					36
									5				50
										1			11
											5		60
													590

PM Peak Hour # of one-way gaps (in seconds) between:

4.1	6.3	8.5	10.7	12.9	15.1	17.3	19.5	21.7	23.9	26.1	28.3	or greater	Left Turn Capacity
77													77
	28												56
		26											78
			20										80
				9									45
					8								48
						9							63
							3						24
								3					27
									1				10
										0			0
											2		24
													532

Hartwell Heights
Town of Perinton, NY

Major Roadway: NY-96
Minor Roadway: Proposed Access
Lanes: 2
3 or 4 Legs: 3
Movement: **Right Turn FROM Minor Roadway**

AM Peak Hour # of one-way gaps (in seconds) between:

6.2	9.5	12.8	16.1	19.4	22.7	26.0	or greater	Right Turn Capacity
50								50
	25							50
		19						57
			6					24
				7				35
					7			42
						7		49
								307

PM Peak Hour # of one-way gaps (in seconds) between:

6.2	9.5	12.8	16.1	19.4	22.7	26.0	or greater	Right Turn Capacity
42								42
	34							68
		13						39
			13					52
				4				20
					2			12
						3		21
								254

Hartwell Heights
Town of Perinton, NY

Major Roadway: NY-96
Minor Roadway: Proposed Access
Lanes: 2
3 or 4 Legs: 3
Movement: **Left Turn FROM Minor Roadway**

AM Peak Hour # of two-way gaps (in seconds) between:

7.1	10.6	14.1	17.6	21.1	24.6	28.1	or greater	Left Turn Capacity
30								30
	11							22
		1						3
			1					4
				0				0
					0			0
						0		0
								59

PM Peak Hour # of two-way gaps (in seconds) between:

7.1	10.6	14.1	17.6	21.1	24.6	28.1	or greater	Left Turn Capacity
27								27
	5							10
		0						0
			0					0
				0				0
					0			0
						0		0
								37

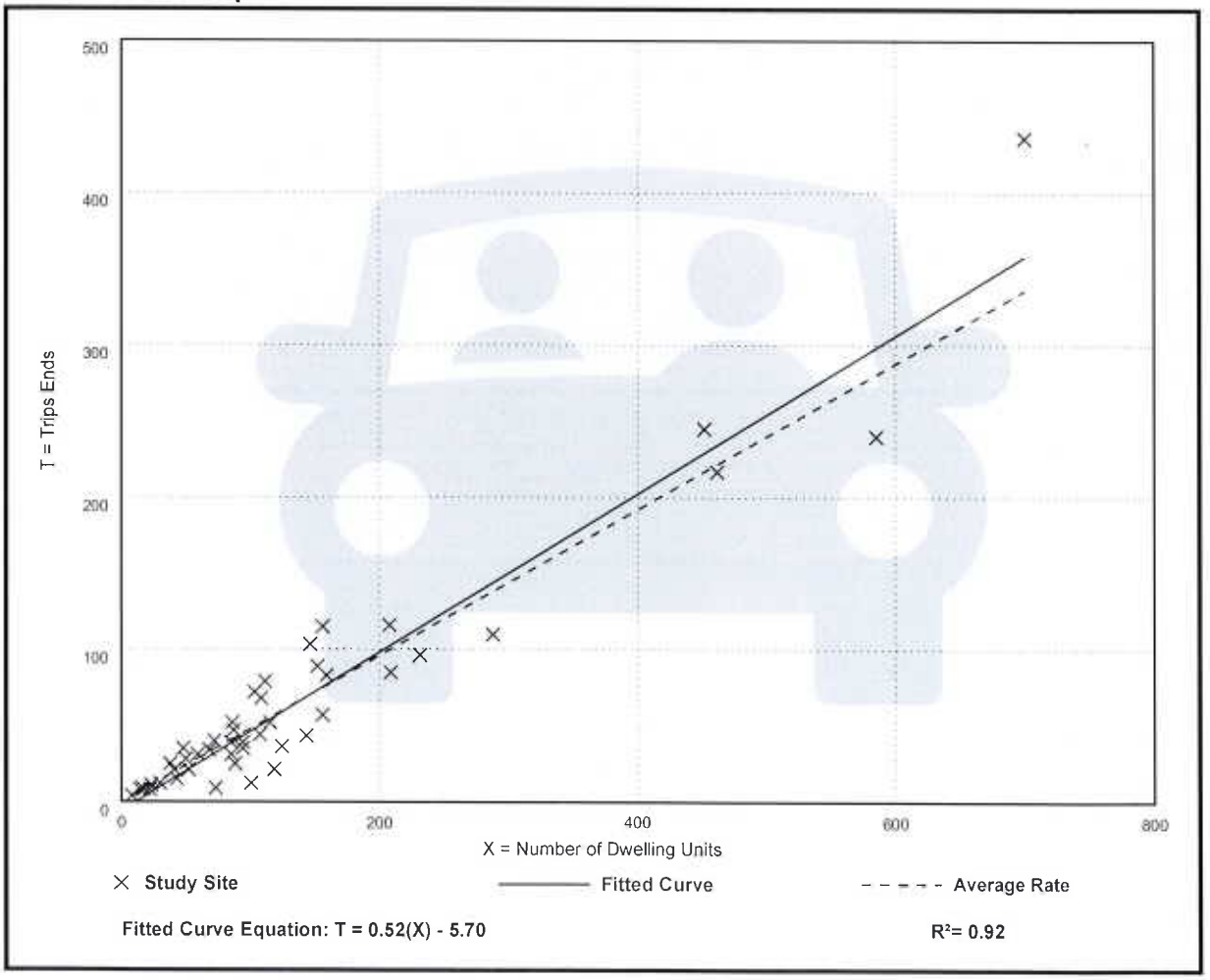
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 31% entering, 69% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



Fitted Curve Equation: T = 0.52(X) - 5.70

R^2= 0.92

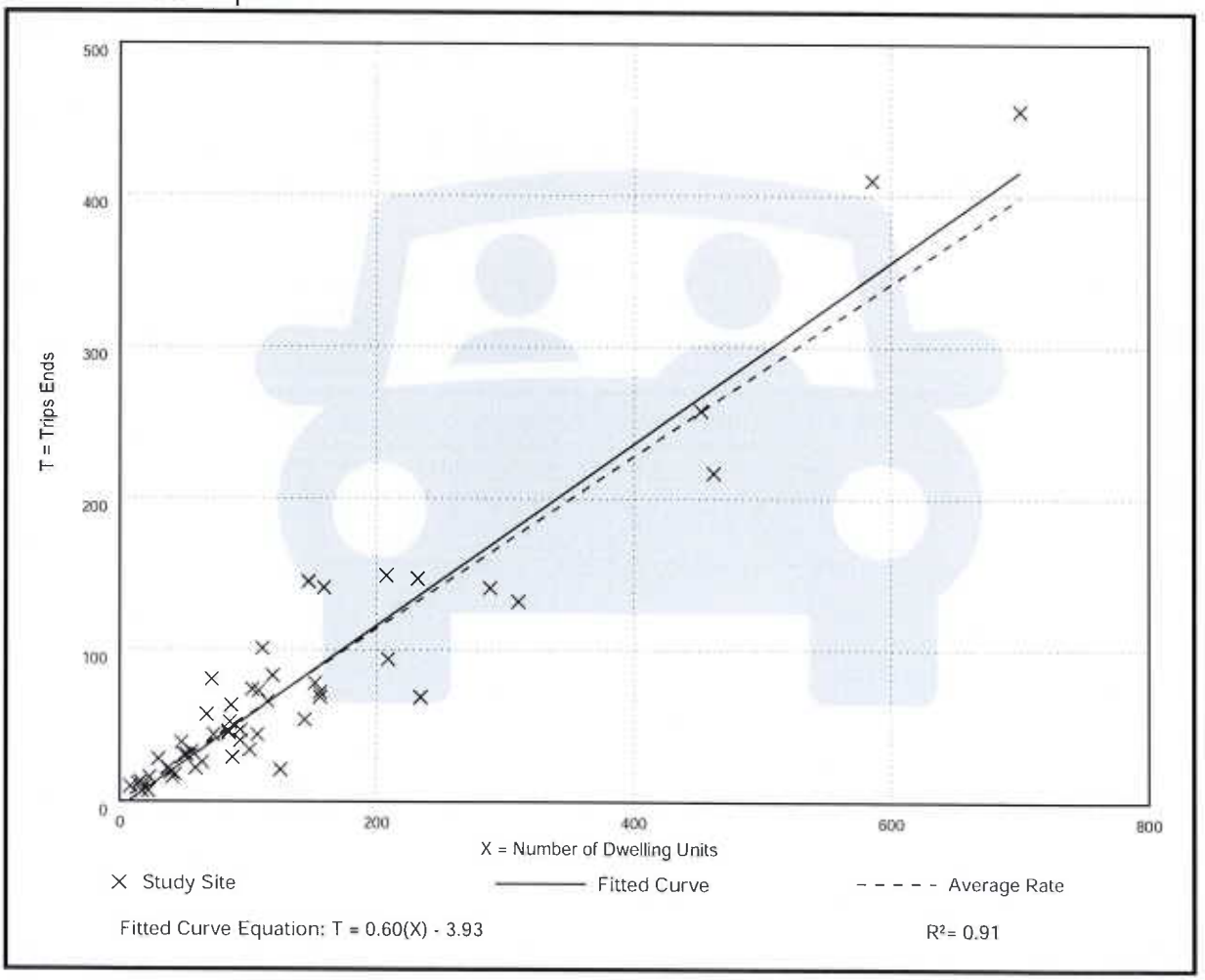
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 51
Avg. Num. of Dwelling Units: 136
Directional Distribution: 57% entering, 43% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



Project: **Hartwell Heights**
Location: **NY-96 / Thornell Road, Perinton, NY**
Peak Hour: **Weekday AM**
Peak: **08:00 to 09:00**
Condition: **Proposed Action**

Figure:		2	3 # of Years 5	4				5	6
Int. #	Intersection	2025 Existing Counts	No Build 1.00%	Trip Generation and Trip Distribution Enter Dist. %	Exit Dist. %	Trips IN 4	Trips OUT 10	Site Trips	Full Build
1	**Thornell Road Proposed Access**								
	SR								
	ST-Thornell	203	213						213
	SL			10%		0		0	0
	WR				10%		1	1	1
	WT-Access								
	WL				10%		1	1	1
	NR			10%		0		0	0
	NT-Thornell	312	328						328
	NL								
	ER								
	ET								
	EL								
2	**NY-96 Thornell Road**								
	SR								
	ST								
	SL								
	WR								
	WT-NY-96	565	594		20%		2	2	596
	WL	187	197						197
	NR	274	288						288
	NT-Thornell								
	NL	38	40		10%		1	1	41
	ER	16	17	10%		0		0	17
	ET-NY-96	362	380	20%		1		1	381
	EL								
3	**NY-96 Proposed Access**								
	SR								
	ST								
	SL								
	WR								
	WT-NY-96	752	790						790
	WL			60%		3		3	3
	NR				60%		6	6	6
	NT								
	NL				20%		2	2	2
	ER			20%		1		1	1
	ET-NY-96	636	668						668
	EL								
4	**NY-96 Marsh Road**								
	SR	59	62	5%		0		0	62
	ST-Marsh	3	3						3
	SL	68	71						71
	WR	96	101						101
	WT-NY-96	698	734	55%		3		3	737
	WL	11	12						12
	NR	6	6						6
	NT-Plaza								
	NL	3	3						3
	ER	3	3						3
	ET-NY-96	586	616		55%		6	6	622
	EL	41	43		5%				43
5	**NY-96 Kreag Road**								
	SR	13	14						14
	ST-NY-96	377	396		40%		4	4	400
	SL	218	229		15%		2	2	231
	WR	209	220	15%		1		1	221
	WT-Kreag	15	16						16
	WL	127	133						133
	NR	216	227						227
	NT-NY-96	561	590	40%		2		2	592
	NL	18	19						19
	ER	26	27						27
	ET-Bruegger's	14	15						15
	EL	18	19						19

Project: **Hartwell Heights**
Location: **NY-96 / Thornell Road, Perinton, NY**
Peak Hour: **Weekday PM**
Peak: **16:45 to 17:45**
Condition: **Proposed Action**

Figure:	2	3	4				5	6
		# of Years						
		5						

Int. #	Intersection	2025 Existing Counts	No Build	Trip Generation and Trip Distribution				Site Trips	Full Build
			1.00%	Enter Dist. %	Exit Dist. %	Trips IN 10	Trips OUT 7		
1	**Thornell Road Proposed Access**								
	SR								
	ST-Thornell	283	297						297
	SL			10%		1		1	1
	WR				10%		1	1	1
	WT-Access								
	WL				10%		1	1	1
	NR			10%		1		1	1
	NT-Thornell	290	305						305
	NL								
	ER								
	ET								
	EL								
2	**NY-96 Thornell Road**								
	SR								
	ST								
	SL								
	WR								
	WT-NY-96	596	626		20%		1	1	627
	WL	252	265						265
	NR	271	285						285
	NT-Thornell								
	NL	19	20		10%		1	1	21
	ER	31	33	10%		1		1	34
	ET-NY-96	476	500	20%		2		2	502
	EL								
3	**NY-96 Proposed Access**								
	SR								
	ST								
	SL								
	WR								
	WT-NY-96	848	891						891
	WL			60%		6		6	6
	NR				60%		4	4	4
	NT								
	NL				20%		1	1	1
	ER			20%		2		2	2
	ET-NY-96	747	785						785
	EL								
4	**NY-96 Marsh Road**								
	SR	75	79	5%		1		1	80
	ST-Marsh	18	19						19
	SL	73	77						77
	WR	137	144						144
	WT-NY-96	720	757	55%		5		5	762
	WL	65	68						68
	NR	61	64						64
	NT-Plaza	23	24						24
	NL	53	56						56
	ER	12	13						13
	ET-NY-96	626	658		55%		4	4	662
	EL	61	64		5%		0	0	64
5	**NY-96 Kreag Road**								
	SR								
	ST-NY-96	456	479		40%		3	3	482
	SL	246	259		15%		1	1	260
	WR	263	276	15%		1		1	277
	WT-Kreag	1	1						1
	WL	97	102						102
	NR	230	242						242
	NT-NY-96	647	680	40%		4		4	684
	NL	4	4						4
	ER								
	ET-Bruegger's	3	3						3
	EL	4	4						4

NYSDOT - Region 4 Timing Sheet 4/17/2025 2:18:12 PM

Station : 3369 - NY96 Pittsford-Victor Rd @ Marsh Rd (Standard File)

Phase	1 (EL)	2 (WT)	3 (ST)	4	5 (WL)	6 (ET)	7	8	9	10	11	12	13	14	15	16
Walk		7		7		7		7								
Ped Clearance		18		18		18		18								
Min Green	5	15		10	5	15		10								
Passage	2	2		3	2	2		3								
Max1	20	35		35	20	35		35								
Max2																
Yellow	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red	1.5	2	1.5	1.5	1.5	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON	ON	ON		ON								
Auto Entry																
Auto Exit																
Non Act1																
Non Act2																
Lock Call																
Min Recall																
Max Recall		ON				ON										
Ped Recall																
Soft Recall																
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage																
Rest In Walk																
Cond Service																
Add Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Flash	ON	ON	ON	ON	ON	ON
Override Higher	ON	ON	ON	ON	ON	ON
Flash Dwell						
Link						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell	2	2	2	2	2	2
Max Presence						
Track R1						
Track R2						
Track R3						
Track R4						
Dwell Ped1						
Exit R1						
Exit R2						
Exit R3						
Exit R4						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Type				
Lockout Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Priority P5				
Priority P6				
Priority P7				
Priority P8				
Priority P9				
Priority P10				
Priority P11				
Priority P12				
Max Lockout				

Station : 3369 - NY96 Pittsford-Victor Rd @ Marsh Rd (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
6	50	1	1	90	10	1	1	12	22		15	40		35	15	40		35								
9		2	2	90	25	2	1	12	22		15	40		35	15	40		35								
14		3	3	90		3	1	12	22		15	40		35	15	40		35								
22		25																								
		25																								
Day Plan 2											**Easy**															
Day Plan 3											**Easy**															

Station : 3369 - NY96 Pittsford-Victor Rd @ Marsh Rd (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Weekk							Day of Month									1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2																																																			1
3																																																			1
4																																																			1
5																																																			1
6																																																			1
7																																																			1
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28																																																			1
29																																																			1
30																																																			1
31																																																			1
32																																																			1

User Comments:

Station : 32601 - NY96 Pittsford-Victor Rd @ Kreag Rd (CR27) (Standard File)

Phase	1 (SL)	2 (NR)	3	4 (ET)	5	6 (ST)	7	8 (WR)	9	10	11	12	13	14	15	16
Walk		7		7		7										
Ped Clearance		20		20		20										
Min Green	5	20		5		20		5								
Gap Ext	2	2		2		2		2								
Max1	15	35		35		35		35								
Max2																
Yellow Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	2	2	1.5	2	1.5	2	1.5	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert																
Added Initial																
Max Initial																
Time Before Reduce																
Cars Before Reduce																
Time To Reduce																
Reduce By																
Min Gap																
Dynamic Max Limit																
Dynamic Max Step																
Enable	ON	ON		ON		ON		ON								
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls																
Min Recall																
Max Recall																
Ped Recall																
Soft Recall		ON				ON										
Dual Entry		ON		ON		ON		ON								
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Guarantd Passage																
Rest In Walk																
Cond Service																
Added Init Calc																

Preemption

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt						
Delay						
Min Duration						
Min Green						
Min Walk						
Ped Clear						
Track Green						
Min Dwell	2	2	2	2	2	2
Max Presence						
Track Veh1						
Track Veh2						
Track Veh3						
Track Veh4						
Dwell Cyc Veh1						
Dwell Cyc Veh2						
Dwell Cyc Veh3						
Dwell Cyc Veh4						
Dwell Cyc Veh5						
Dwell Cyc Veh6						
Dwell Cyc Veh7						
Dwell Cyc Veh8						
Dwell Cyc Veh9						
Dwell Cyc Veh10						
Dwell Cyc Veh11						
Dwell Cyc Veh12						
Dwell Cyc Ped1						
Dwell Cyc Ped2						
Dwell Cyc Ped3						

Preempt LP

Channel	1	2	3	4
Min				
Max				
Enable				
Lock Mode	MAX	MAX	MAX	MAX
Coord in Preempt				
No Skip				
Priority P1				
Priority P2				
Priority P3				
Priority P4				
Lock				
Headway				
Group Lock				
Queue Jump				
Free Mode				
Alt Table				

Dwell Cyc Ped4						
Dwell Cyc Ped5						
Dwell Cyc Ped6						
Dwell Cyc Ped7						
Dwell Cyc Ped8						
Exit 1						
Exit 2						
Exit 3						
Exit 4						

Station : 32601 - NY96 Pittsford-Victor Rd @ Kreag Rd (CR27) (Standard File)

Coordination

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 1											**Easy**															
		25																								
6	50	1	1	90	87	1	1	12	22		20	35		35	20	35		35								
9		2	2	90	25	2	1	12	22		20	35		35	20	35		35								
14		3	3	90	12	3	1	12	22		20	35		35	20	35		35								
22		25																								
Day Plan 2											**Easy**															
		25																								
Day Plan 3											**Easy**															

Station : 32601 - NY96 Pittsford-Victor Rd @ Kreag Rd (CR27) (Standard File)

Hour	Minute	Action	Pattern	Cycle	Offset	Split	seqnc	Short	Long	Dwell	Split 1	Split 2	Split 3	Split 4	Split 5	Split 6	Split 7	Split 8	Split 9	Split 10	Split 11	Split 12	Split 13	Split 14	Split 15	Split 16
Day Plan 4											**Easy**															

Scheduler

	Month												Day of Weekk							Day of Month									1										2										3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3																																																			1
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32																																																			1

User Comments:

APPENDIX C: LOS CALCULATIONS – EXISTING CONDITIONS

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	362	16	187	565	38	274
Future Volume (vph)	362	16	187	565	38	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		30	0
Storage Lanes		0	1		1	1
Taper Length (ft)			110		90	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1793	0	1703	1827	1752	1553
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1793	0	1703	1827	1752	1553
Link Speed (mph)	30			30	35	
Link Distance (ft)	1210			1153	883	
Travel Time (s)	27.5			26.2	17.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	13%	6%	4%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	389	17	201	608	41	295
Shared Lane Traffic (%)						
Lane Group Flow (vph)	406	0	201	608	41	295
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	362	16	187	565	38	274
Future Vol, veh/h	362	16	187	565	38	274
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	30	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	13	6	4	3	4
Mvmt Flow	389	17	201	608	41	295

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	406	0	1408	398
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	1010	-
Critical Hdwy	-	-	4.16	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.254	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1131	-	152	647
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	351	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1131	-	125	647
Mov Cap-2 Maneuver	-	-	-	-	125	-
Stage 1	-	-	-	-	676	-
Stage 2	-	-	-	-	288	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.21	19.01
HCM LOS			C

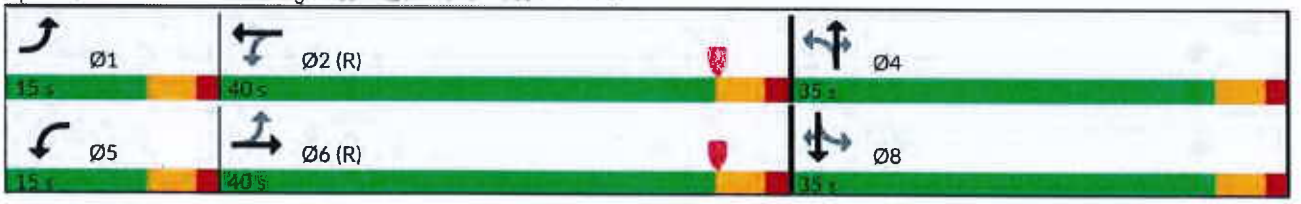
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	125	647	-	-	1131	-
HCM Lane V/C Ratio	0.326	0.455	-	-	0.178	-
HCM Ctrl Dly (s/v)	47.1	15.1	-	-	8.9	-
HCM Lane LOS	E	C	-	-	A	-
HCM 95th %tile Q(veh)	1.3	2.4	-	-	0.6	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	586	3	11	698	96	3	0	6	68	3	59
Future Volume (vph)	41	586	3	11	698	96	3	0	6	68	3	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		0	160		0	0		0	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	80			25			25			25		
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
Ped Bike Factor												
Frt		0.999			0.982				0.850			0.850
Flt Protected	0.950			0.950				0.950			0.954	
Satd. Flow (prot)	1805	1805	0	1421	1781	0	0	1805	1214	0	1714	1509
Flt Permitted	0.221			0.375				0.707			0.733	
Satd. Flow (perm)	420	1805	0	561	1781	0	0	1343	1214	0	1317	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9				85			85
Link Speed (mph)		30			30			10			30	
Link Distance (ft)		1153			592			497			595	
Travel Time (s)		26.2			13.5			33.9			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	33%	27%	5%	3%	0%	0%	33%	6%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	45	637	3	12	759	104	3	0	7	74	3	64
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	640	0	12	863	0	0	3	7	0	77	64
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	30.0		10.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
Total Split (s)	15.0	40.0		15.0	40.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	16.7%	44.4%		16.7%	44.4%		38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Maximum Green (s)	10.0	35.0		10.0	35.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		18.0			18.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	70.6	70.4		68.2	66.2			11.6	11.6		11.6	11.6
Actuated g/C Ratio	0.78	0.78		0.76	0.74			0.13	0.13		0.13	0.13
v/c Ratio	0.11	0.45		0.03	0.66			0.02	0.03		0.46	0.24
Control Delay (s/veh)	3.7	6.8		2.5	9.0			32.7	0.2		44.8	7.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	3.7	6.8		2.5	9.0			32.7	0.2		44.8	7.1
LOS	A	A		A	A			C	A		D	A
Approach Delay (s/veh)		6.6			8.9			9.9			27.7	
Approach LOS		A			A			A			C	
Queue Length 50th (ft)	5	99		1	112			2	0		42	0
Queue Length 95th (ft)	15	301		m3	238			9	0		82	23
Internal Link Dist (ft)		1073			512			417			515	
Turn Bay Length (ft)	230			160								70
Base Capacity (vph)	486	1411		539	1312			447	461		439	559
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.09	0.45		0.02	0.66			0.01	0.02		0.18	0.11

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 10 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 9.5		Intersection LOS: A	
Intersection Capacity Utilization 71.7%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: Hitching Post Plaza/Marsh Road & NY-96



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	14	26	127	15	209	18	561	216	218	377	13
Future Volume (vph)	18	14	26	127	15	209	18	561	216	218	377	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	125		0	100		125	100		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			75			25			50		
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
Ped Bike Factor												
Frt		0.939				0.850			0.850		0.995	
Flt Protected		0.985			0.957		0.950			0.950		
Satd. Flow (prot)	0	1726	0	0	1786	1495	1805	1827	1568	1703	1820	0
Flt Permitted		0.875			0.760		0.519			0.257		
Satd. Flow (perm)	0	1533	0	0	1419	1495	986	1827	1568	461	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28				97			138		2	
Link Speed (mph)		30			35			30			30	
Link Distance (ft)		765			1110			973			592	
Travel Time (s)		17.4			21.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	2%	0%	8%	0%	4%	3%	6%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	19	15	28	135	16	222	19	597	230	232	401	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	151	222	19	597	230	232	415	0
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	
Minimum Split (s)	32.5	32.5		32.5	32.5	10.5	10.5	32.5	32.5	10.5	32.5	
Total Split (s)	35.0	35.0		35.0	35.0	20.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	22.2%	22.2%	38.9%	38.9%	22.2%	38.9%	
Maximum Green (s)	29.5	29.5		29.5	29.5	14.5	14.5	29.5	29.5	14.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Don't Walk (s)	20.0	20.0						20.0	20.0		20.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)		14.8			14.8	32.5	51.6	46.5	46.5	64.2	59.9	
Actuated g/C Ratio		0.16			0.16	0.36	0.57	0.52	0.52	0.71	0.67	
v/c Ratio		0.23			0.65	0.37	0.03	0.63	0.26	0.47	0.34	
Control Delay (s/veh)		20.8			47.0	11.3	6.8	22.8	7.7	11.4	7.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		20.8			47.0	11.3	6.8	22.8	7.7	11.4	7.8	
LOS		C			D	B	A	C	A	B	A	
Approach Delay (s/veh)		20.8			25.8			18.3			9.1	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		17			81	49	3	232	26	33	64	
Queue Length 95th (ft)		47			132	79	11	#509	88	117	141	
Internal Link Dist (ft)		685			1030			893			512	
Turn Bay Length (ft)							100		125	100		
Base Capacity (vph)		521			465	650	792	943	876	540	1211	
Starvation Cap Reductn		0			0	0	0	0	0	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0			0	0	0	0	0	0	0	
Reduced v/c Ratio		0.12			0.32	0.34	0.02	0.63	0.26	0.43	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 87 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay (s/veh): 16.7 Intersection LOS: B
Intersection Capacity Utilization 69.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: NY-96 & Bruegger's/Kreag Road

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	476	31	252	596	19	271
Future Volume (vph)	476	31	252	596	19	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		30	0
Storage Lanes		0	1		1	1
Taper Length (ft)			110		90	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1867	0	1787	1881	1805	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1867	0	1787	1881	1805	1615
Link Speed (mph)	30			30	35	
Link Distance (ft)	1210			1153	883	
Travel Time (s)	27.5			26.2	17.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	580	38	307	727	23	330
Shared Lane Traffic (%)						
Lane Group Flow (vph)	618	0	307	727	23	330
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	7.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	476	31	252	596	19	271
Future Vol, veh/h	476	31	252	596	19	271
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	30	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	0	1	1	0	0
Mvmt Flow	580	38	307	727	23	330

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	618	0	1941	599
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	1341	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	967	-	73	505
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	246	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	967	-	50	505
Mov Cap-2 Maneuver	-	-	-	-	50	-
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	168	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.11	31.53
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	50	505	-	-	967	-
HCM Lane V/C Ratio	0.468	0.654	-	-	0.318	-
HCM Ctrl Dly (s/v)	130.2	24.6	-	-	10.4	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	1.7	4.7	-	-	1.4	-

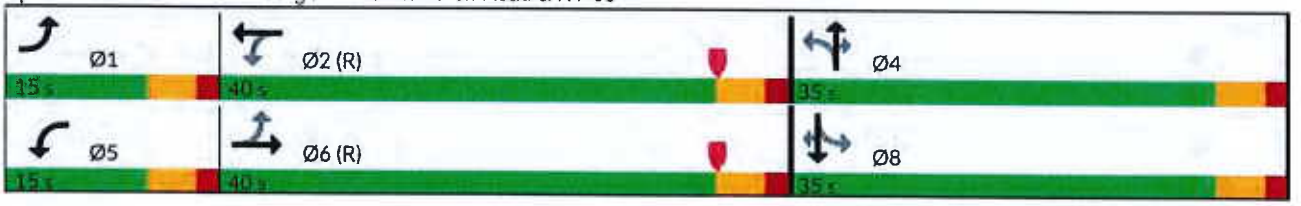
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	626	12	65	720	137	53	23	61	73	18	75
Future Volume (vph)	61	626	12	65	720	137	53	23	61	73	18	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		0	160		0	0		0	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	80			25			25			25		
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
Ped Bike Factor												
Frt		0.997			0.976				0.850			0.850
Flt Protected	0.950			0.950				0.966			0.962	
Satd. Flow (prot)	1624	1688	0	1624	1655	0	0	1652	1454	0	1645	1454
Flt Permitted	0.193			0.323				0.734			0.716	
Satd. Flow (perm)	330	1688	0	552	1655	0	0	1255	1454	0	1224	1454
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			12				85			85
Link Speed (mph)		30			30			10			30	
Link Distance (ft)		1153			592			497			595	
Travel Time (s)		26.2			13.5			33.9			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	652	13	68	750	143	55	24	64	76	19	78
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	665	0	68	893	0	0	79	64	0	95	78
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	30.0		10.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
Total Split (s)	15.0	40.0		15.0	40.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	16.7%	44.4%		16.7%	44.4%		38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Maximum Green (s)	10.0	35.0		10.0	35.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		18.0			18.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	66.3	62.5		66.2	62.5			12.8	12.8		12.8	12.8
Actuated g/C Ratio	0.74	0.69		0.74	0.69			0.14	0.14		0.14	0.14
v/c Ratio	0.20	0.57		0.14	0.77			0.44	0.23		0.55	0.28
Control Delay (s/veh)	5.2	12.8		6.6	20.7			42.6	6.6		47.3	9.4
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	5.2	12.8		6.6	20.7			42.6	6.6		47.3	9.4
LOS	A	B		A	C			D	A		D	A
Approach Delay (s/veh)		12.1			19.7			26.5			30.2	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	7	201		9	275			42	0		52	0
Queue Length 95th (ft)	22	390		m34	#719			81	22		95	33
Internal Link Dist (ft)		1073			512			417			515	
Turn Bay Length (ft)	230			160								70
Base Capacity (vph)	398	1173		545	1153			418	541		408	541
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.16	0.57		0.12	0.77			0.19	0.12		0.23	0.14

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay (s/veh): 18.3 Intersection LOS: B
Intersection Capacity Utilization 80.5% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hitching Post Plaza/Marsh Road & NY-96



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	3	0	97	1	263	4	647	230	246	456	0
Future Volume (vph)	4	3	0	97	1	263	4	647	230	246	456	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	125		0	100		125	100		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			75			25			50		
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
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected		0.972			0.953		0.950			0.950		
Satd. Flow (prot)	0	1662	0	0	1614	1439	1624	1693	1439	1608	1693	0
Flt Permitted		0.836			0.724		0.498			0.235		
Satd. Flow (perm)	0	1430	0	0	1226	1439	852	1693	1439	398	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						76			127			
Link Speed (mph)		30			35			30			30	
Link Distance (ft)		765			1110			973			592	
Travel Time (s)		17.4			21.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	3	0	98	1	266	4	654	232	248	461	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	99	266	4	654	232	248	461	0
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	
Minimum Split (s)	32.5	32.5		30.0	30.0	10.5	10.5	32.5	32.5	10.5	32.5	
Total Split (s)	35.0	35.0		35.0	35.0	20.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	22.2%	22.2%	38.9%	38.9%	22.2%	38.9%	
Maximum Green (s)	29.5	29.5		29.5	29.5	14.5	14.5	29.5	29.5	14.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Don't Walk (s)	20.0	20.0						20.0	20.0		20.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)		11.5			11.6	29.2	54.8	49.8	49.8	69.6	68.6	
Actuated g/C Ratio		0.13			0.13	0.32	0.61	0.55	0.55	0.77	0.76	
v/c Ratio		0.04			0.63	0.51	0.01	0.70	0.27	0.50	0.36	
Control Delay (s/veh)		31.6			53.4	18.4	6.0	24.1	8.0	10.7	3.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		31.6			53.4	18.4	6.0	24.1	8.0	10.7	3.3	
LOS		C			D	B	A	C	A	B	A	
Approach Delay (s/veh)		31.6			27.9			19.8			5.9	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		4			54	81	1	270	29	20	37	
Queue Length 95th (ft)		15			99	118	4	#588	92	84	62	
Internal Link Dist (ft)		685			1030			893			512	
Turn Bay Length (ft)							100		125	100		
Base Capacity (vph)		468			401	546	731	937	853	525	1290	
Starvation Cap Reductn		0			0	0	0	0	0	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0			0	0	0	0	0	0	0	
Reduced v/c Ratio		0.01			0.25	0.49	0.01	0.70	0.27	0.47	0.36	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 12 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay (s/veh): 16.3 Intersection LOS: B
Intersection Capacity Utilization 76.1% 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: 5: NY-96 & Bruegger's/Kreag Road

2: Thornell Road & NY-96 Performance by lane

Lane	EB	WB	WB	NB	NB	All
Movements Served	TR	L	T	L	R	
Denied Delay (hr)						0.1
Denied Del/Veh (s)						0.3
Total Delay (hr)	0.2	0.2	0.6	0.3	0.7	1.9
Total Del/Veh (s)	1.4	4.2	3.6	25.3	8.7	4.6
Stop Delay (hr)	0.0	0.1	0.0	0.3	0.5	0.9
Stop Del/Veh (s)	0.0	2.3	0.1	24.4	6.7	2.2

4: Hitching Post Plaza/Marsh Road & NY-96 Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Delay (hr)									0.1
Denied Del/Veh (s)									0.2
Total Delay (hr)	0.2	0.9	0.0	1.4	0.0	0.0	0.8	0.2	3.5
Total Del/Veh (s)	13.2	5.2	7.0	6.5	43.0	7.0	38.8	9.6	7.8
Stop Delay (hr)	0.1	0.4	0.0	0.5	0.0	0.0	0.7	0.2	2.0
Stop Del/Veh (s)	11.4	2.5	5.1	2.3	43.7	7.8	33.9	10.0	4.4

5: NY-96 & Bruegger's/Kreag Road Performance by lane

Lane	EB	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LTR	LT	R	L	T	R	L	TR	
Denied Delay (hr)									0.6
Denied Del/Veh (s)									1.1
Total Delay (hr)	0.4	1.4	0.8	0.0	2.4	0.2	0.9	0.8	6.9
Total Del/Veh (s)	23.7	35.6	13.1	6.4	15.2	2.7	13.8	6.5	12.9
Stop Delay (hr)	0.3	1.3	0.6	0.0	1.4	0.1	0.8	0.3	5.0
Stop Del/Veh (s)	21.8	33.4	10.4	4.9	8.9	2.2	12.4	2.6	9.4

Total Network Performance

Denied Delay (hr)	0.7
Denied Del/Veh (s)	1.3
Total Delay (hr)	13.0
Total Del/Veh (s)	22.0
Stop Delay (hr)	7.9
Stop Del/Veh (s)	13.4

Intersection: 2: Thornell Road & NY-96

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	4	97	30	89	148
Average Queue (ft)	0	44	1	28	66
95th Queue (ft)	5	82	22	63	120
Link Distance (ft)	1172		1081		845
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		90		30	
Storage Blk Time (%)		0		21	35
Queuing Penalty (veh)		2		57	13

Intersection: 4: Hitching Post Plaza/Marsh Road & NY-96

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	60	197	56	277	30	46	143	95
Average Queue (ft)	23	82	8	83	2	7	57	39
95th Queue (ft)	51	174	33	199	15	31	114	86
Link Distance (ft)		1081		510	462	462	559	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	230		160					70
Storage Blk Time (%)		0		2			7	1
Queuing Penalty (veh)		0		0			4	1

Intersection: 5: NY-96 & Bruegger's/Kreag Road

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	92	150	174	67	426	200	149	221
Average Queue (ft)	34	79	75	11	166	65	77	63
95th Queue (ft)	71	133	139	46	327	165	135	154
Link Distance (ft)	729		1062		944			510
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		125		100		125	100	
Storage Blk Time (%)		1	2		16	0	4	2
Queuing Penalty (veh)		3	2		38	0	17	4

Network Summary

Network wide Queuing Penalty: 142

2: Thornell Road & NY-96 Performance by lane

Lane	EB	WB	WB	NB	NB	All
Movements Served	TR	L	T	L	R	
Denied Delay (hr)						0.1
Denied Del/Veh (s)						0.3
Total Delay (hr)	0.3	0.5	0.7	0.2	0.9	2.7
Total Del/Veh (s)	1.8	6.9	4.1	43.6	12.0	5.5
Stop Delay (hr)	0.0	0.4	0.0	0.2	0.8	1.4
Stop Del/Veh (s)	0.0	4.9	0.2	42.6	10.3	2.9

4: Hitching Post Plaza/Marsh Road & NY-96 Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Delay (hr)									0.2
Denied Del/Veh (s)									0.3
Total Delay (hr)	0.3	2.0	0.2	4.8	0.7	0.2	1.0	0.2	9.4
Total Del/Veh (s)	19.4	10.0	12.0	19.6	32.2	9.3	38.8	11.9	16.7
Stop Delay (hr)	0.3	1.1	0.2	2.6	0.7	0.2	0.8	0.3	6.2
Stop Del/Veh (s)	17.3	5.4	9.7	10.8	33.3	10.1	33.4	12.3	11.0

5: NY-96 & Bruegger's/Kreag Road Performance by lane

Lane	EB	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LTR	LT	R	L	T	R	L	TR	
Denied Delay (hr)									0.6
Denied Del/Veh (s)									1.1
Total Delay (hr)	0.1	1.1	1.4	0.0	4.3	0.2	1.3	0.9	9.2
Total Del/Veh (s)	43.5	39.4	18.2	8.1	23.2	3.3	18.6	5.9	16.1
Stop Delay (hr)	0.1	1.0	1.2	0.0	2.5	0.2	1.2	0.2	6.4
Stop Del/Veh (s)	41.1	37.3	15.3	6.5	13.7	2.7	17.4	1.6	11.2

Total Network Performance

Denied Delay (hr)	0.9
Denied Del/Veh (s)	1.4
Total Delay (hr)	22.1
Total Del/Veh (s)	32.0
Stop Delay (hr)	14.1
Stop Del/Veh (s)	20.4

Intersection: 2: Thornell Road & NY-96

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	32	132	82	90	179
Average Queue (ft)	2	59	4	18	69
95th Queue (ft)	15	106	41	54	133
Link Distance (ft)	1172		1081		845
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		90		30	
Storage Blk Time (%)		2	0	16	42
Queuing Penalty (veh)		16	0	46	8

Intersection: 4: Hitching Post Plaza/Marsh Road & NY-96

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	125	283	184	520	149	76	157	95
Average Queue (ft)	33	136	50	260	54	34	64	41
95th Queue (ft)	82	243	146	472	110	62	124	87
Link Distance (ft)		1081		510	462	462	559	
Upstream Blk Time (%)				1				
Queuing Penalty (veh)				6				
Storage Bay Dist (ft)	230		160					70
Storage Blk Time (%)		1		18			10	1
Queuing Penalty (veh)		1		12			8	1

Intersection: 5: NY-96 & Bruegger's/Kreag Road

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	42	162	191	48	686	200	148	222
Average Queue (ft)	6	66	90	2	237	86	84	56
95th Queue (ft)	26	124	162	13	568	214	138	153
Link Distance (ft)	729		1062		944			510
Upstream Blk Time (%)					1			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)		125		100		125	100	
Storage Blk Time (%)		1	4		21	0	7	1
Queuing Penalty (veh)		3	4		50	0	33	1

Network Summary

Network wide Queuing Penalty: 188

APPENDIX D: LOS CALCULATIONS – BACKGROUND CONDITIONS

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	380	17	197	594	40	288
Future Volume (vph)	380	17	197	594	40	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		30	0
Storage Lanes		0	1		1	1
Taper Length (ft)			110		90	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1793	0	1703	1827	1752	1553
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1793	0	1703	1827	1752	1553
Link Speed (mph)	30			30	35	
Link Distance (ft)	1210			1153	883	
Travel Time (s)	27.5			26.2	17.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	13%	6%	4%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	409	18	212	639	43	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	427	0	212	639	43	310
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	380	17	197	594	40	288
Future Vol, veh/h	380	17	197	594	40	288
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	30	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	13	6	4	3	4
Mvmt Flow	409	18	212	639	43	310

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	427	0	1480	418
Stage 1	-	-	-	-	418	-
Stage 2	-	-	-	-	1062	-
Critical Hdwy	-	-	4.16	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.254	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1111	-	137	631
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	331	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1111	-	111	631
Mov Cap-2 Maneuver	-	-	-	-	111	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	268	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.24	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	111	631	-	-	1111	-
HCM Lane V/C Ratio	0.387	0.491	-	-	0.191	-
HCM Ctrl Dly (s/v)	56.4	16.1	-	-	9	-
HCM Lane LOS	F	C	-	-	A	-
HCM 95th %tile Q(veh)	1.6	2.7	-	-	0.7	-

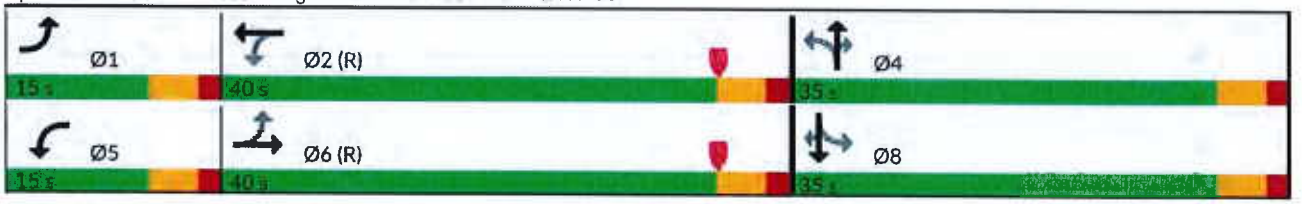
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	616	3	12	734	101	3	0	6	71	3	62
Future Volume (vph)	43	616	3	12	734	101	3	0	6	71	3	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		0	160		0	0		0	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	80			25			25			25		
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
Ped Bike Factor												
Frt		0.999			0.982				0.850			0.850
Flt Protected	0.950			0.950				0.950			0.954	
Satd. Flow (prot)	1805	1806	0	1421	1781	0	0	1805	1214	0	1714	1509
Flt Permitted	0.197			0.356				0.705			0.732	
Satd. Flow (perm)	374	1806	0	533	1781	0	0	1340	1214	0	1315	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9				85			85
Link Speed (mph)		30			30			10			30	
Link Distance (ft)		1153			592			497			595	
Travel Time (s)		26.2			13.5			33.9			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	33%	27%	5%	3%	0%	0%	33%	6%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	47	670	3	13	798	110	3	0	7	77	3	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	673	0	13	908	0	0	3	7	0	80	67
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	30.0		10.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
Total Split (s)	15.0	40.0		15.0	40.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	16.7%	44.4%		16.7%	44.4%		38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Maximum Green (s)	10.0	35.0		10.0	35.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		18.0			18.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	70.4	70.2		68.0	66.0			11.7	11.7		11.7	11.7
Actuated g/C Ratio	0.78	0.78		0.76	0.73			0.13	0.13		0.13	0.13
v/c Ratio	0.13	0.48		0.03	0.69			0.02	0.03		0.47	0.25
Control Delay (s/veh)	3.9	7.2		2.6	10.4			32.7	0.2		45.0	7.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	3.9	7.2		2.6	10.4			32.7	0.2		45.0	7.7
LOS	A	A		A	B			C	A		D	A
Approach Delay (s/veh)		7.0			10.2			9.9			28.0	
Approach LOS		A			B			A			C	
Queue Length 50th (ft)	5	109		1	125			2	0		43	0
Queue Length 95th (ft)	15	329		m3	#317			9	0		84	26
Internal Link Dist (ft)		1073			512			417			515	
Turn Bay Length (ft)	230			160								70
Base Capacity (vph)	455	1409		519	1308			446	461		438	559
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.10	0.48		0.03	0.69			0.01	0.02		0.18	0.12

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay (s/veh): 10.4 Intersection LOS: B
Intersection Capacity Utilization 73.9% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hitching Post Plaza/Marsh Road & NY-96



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	15	27	133	16	220	19	590	227	229	396	14
Future Volume (vph)	19	15	27	133	16	220	19	590	227	229	396	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	125		0	100		125	100		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			75			25			50		
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
Ped Bike Factor												
Frt		0.940				0.850			0.850		0.995	
Flt Protected		0.985			0.957		0.950			0.950		
Satd. Flow (prot)	0	1728	0	0	1786	1495	1805	1827	1568	1703	1820	0
Flt Permitted		0.873			0.767		0.509			0.225		
Satd. Flow (perm)	0	1532	0	0	1432	1495	967	1827	1568	403	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29				85			137		2	
Link Speed (mph)		30			35			30			30	
Link Distance (ft)		765			1110			973			592	
Travel Time (s)		17.4			21.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	2%	0%	8%	0%	4%	3%	6%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	16	29	141	17	234	20	628	241	244	421	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	158	234	20	628	241	244	436	0
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	
Minimum Split (s)	32.5	32.5		32.5	32.5	10.5	10.5	32.5	32.5	10.5	32.5	
Total Split (s)	35.0	35.0		35.0	35.0	20.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	22.2%	22.2%	38.9%	38.9%	22.2%	38.9%	
Maximum Green (s)	29.5	29.5		29.5	29.5	14.5	14.5	29.5	29.5	14.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Don't Walk (s)	20.0	20.0						20.0	20.0		20.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)		15.3			15.3	33.7	50.4	45.3	45.3	63.7	59.4	
Actuated g/C Ratio		0.17			0.17	0.37	0.56	0.50	0.50	0.71	0.66	
v/c Ratio		0.23			0.65	0.38	0.03	0.68	0.28	0.52	0.36	
Control Delay (s/veh)		20.6			46.4	12.6	7.2	25.3	8.5	14.2	8.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		20.6			46.4	12.6	7.2	25.3	8.5	14.2	8.5	
LOS		C			D	B	A	C	A	B	A	
Approach Delay (s/veh)		20.6			26.2			20.3			10.5	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		18			85	58	3	259	30	36	70	
Queue Length 95th (ft)		48			136	86	12	#567	99	144	158	
Internal Link Dist (ft)		685			1030			893			512	
Turn Bay Length (ft)							100		125	100		
Base Capacity (vph)		521			469	655	771	918	856	511	1202	
Starvation Cap Reductn		0			0	0	0	0	0	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0			0	0	0	0	0	0	0	
Reduced v/c Ratio		0.12			0.34	0.36	0.03	0.68	0.28	0.48	0.36	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 87 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay (s/veh): 18.2 Intersection LOS: B
Intersection Capacity Utilization 72.4% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: NY-96 & Bruegger's/Kreag Road

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	500	33	265	626	20	285
Future Volume (vph)	500	33	265	626	20	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		30	0
Storage Lanes		0	1		1	1
Taper Length (ft)			110		90	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1867	0	1787	1881	1805	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1867	0	1787	1881	1805	1615
Link Speed (mph)	30			30	35	
Link Distance (ft)	1210			1153	883	
Travel Time (s)	27.5			26.2	17.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	610	40	323	763	24	348
Shared Lane Traffic (%)						
Lane Group Flow (vph)	650	0	323	763	24	348
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	500	33	265	626	20	285
Future Vol, veh/h	500	33	265	626	20	285
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	30	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	0	1	1	0	0
Mvmt Flow	610	40	323	763	24	348

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	650	0	2040	630
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	1410	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	941	-	63	485
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	228	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	941	-	41	485
Mov Cap-2 Maneuver	-	-	-	-	41	-
Stage 1	-	-	-	-	535	-
Stage 2	-	-	-	-	150	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.22	38.73
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	41	485	-	-	941	-
HCM Lane V/C Ratio	0.59	0.716	-	-	0.343	-
HCM Ctrl Dly (s/v)	177.7	29	-	-	10.8	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q(veh)	2.1	5.7	-	-	1.5	-

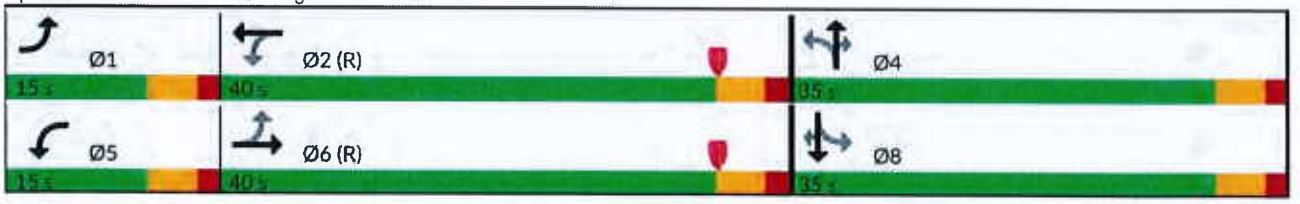
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	658	13	68	757	144	56	24	64	77	19	79
Future Volume (vph)	64	658	13	68	757	144	56	24	64	77	19	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		0	160		0	0		0	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	80			25			25			25		
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
Ped Bike Factor												
Frt		0.997			0.976				0.850			0.850
Flt Protected	0.950			0.950				0.966			0.962	
Satd. Flow (prot)	1624	1688	0	1624	1655	0	0	1652	1454	0	1645	1454
Flt Permitted	0.164			0.302				0.730			0.713	
Satd. Flow (perm)	280	1688	0	516	1655	0	0	1248	1454	0	1219	1454
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			12				85			85
Link Speed (mph)		30			30			10			30	
Link Distance (ft)		1153			592			497			595	
Travel Time (s)		26.2			13.5			33.9			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	67	685	14	71	789	150	58	25	67	80	20	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	699	0	71	939	0	0	83	67	0	100	82
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	30.0		10.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
Total Split (s)	15.0	40.0		15.0	40.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	16.7%	44.4%		16.7%	44.4%		38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Maximum Green (s)	10.0	35.0		10.0	35.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		18.0			18.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	65.9	62.1		65.8	62.1			13.1	13.1		13.1	13.1
Actuated g/C Ratio	0.73	0.69		0.73	0.69			0.15	0.15		0.15	0.15
v/c Ratio	0.23	0.60		0.16	0.82			0.46	0.24		0.56	0.29
Control Delay (s/veh)	5.8	13.9		7.2	23.7			42.5	7.0		47.6	9.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	5.8	13.9		7.2	23.7			42.5	7.0		47.6	9.8
LOS	A	B		A	C			D	A		D	A
Approach Delay (s/veh)		13.2			22.6			26.7			30.6	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	8	223		11	326			44	0		54	0
Queue Length 95th (ft)	23	435		m36	#785			84	25		99	35
Internal Link Dist (ft)		1073			512			417			515	
Turn Bay Length (ft)	230			160								70
Base Capacity (vph)	364	1165		519	1145			416	541		406	541
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.18	0.60		0.14	0.82			0.20	0.12		0.25	0.15

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay (s/veh): 20.1 Intersection LOS: C
Intersection Capacity Utilization 83.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hitching Post Plaza/Marsh Road & NY-96

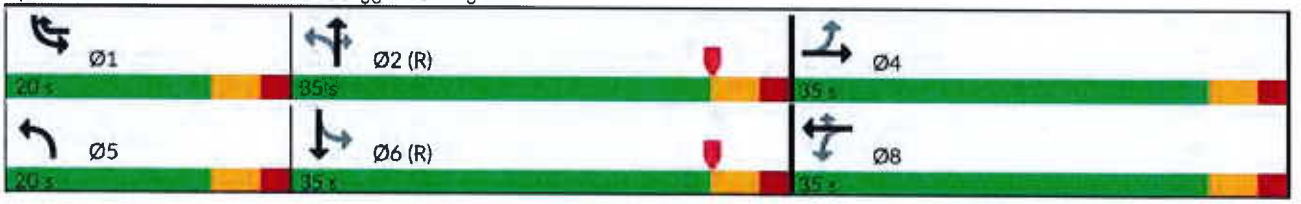


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	3	0	102	1	276	4	680	242	259	479	0
Future Volume (vph)	4	3	0	102	1	276	4	680	242	259	479	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	125		0	100		125	100		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			75			25			50		
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
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected		0.972			0.953		0.950			0.950		
Satd. Flow (prot)	0	1662	0	0	1614	1439	1624	1693	1439	1608	1693	0
Flt Permitted		0.838			0.724		0.487			0.203		
Satd. Flow (perm)	0	1433	0	0	1226	1439	833	1693	1439	344	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						66			127			
Link Speed (mph)		30			35			30			30	
Link Distance (ft)		765			1110			973			592	
Travel Time (s)		17.4			21.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	3	0	103	1	279	4	687	244	262	484	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	104	279	4	687	244	262	484	0
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	
Minimum Split (s)	32.5	32.5		30.0	30.0	10.5	10.5	32.5	32.5	10.5	32.5	
Total Split (s)	35.0	35.0		35.0	35.0	20.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	22.2%	22.2%	38.9%	38.9%	22.2%	38.9%	
Maximum Green (s)	29.5	29.5		29.5	29.5	14.5	14.5	29.5	29.5	14.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Don't Walk (s)	20.0	20.0						20.0	20.0		20.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)		11.8			12.0	30.5	53.5	48.5	48.5	69.3	68.3	
Actuated g/C Ratio		0.13			0.13	0.34	0.59	0.54	0.54	0.77	0.76	
v/c Ratio		0.04			0.64	0.53	0.01	0.75	0.29	0.55	0.38	
Control Delay (s/veh)		31.1			53.3	19.3	6.5	27.2	8.8	15.1	3.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		31.1			53.3	19.3	6.5	27.2	8.8	15.1	3.4	
LOS		C			D	B	A	C	A	B	A	
Approach Delay (s/veh)		31.1			28.5			22.3			7.5	
Approach LOS		C			C			C			A	
Queue Length 50th (ft)		4			57	90	1	305	34	24	39	
Queue Length 95th (ft)		15			102	127	4	#646	103	110	65	
Internal Link Dist (ft)		685			1030			893			512	
Turn Bay Length (ft)							100		125	100		
Base Capacity (vph)		469			401	553	710	912	833	499	1284	
Starvation Cap Reductn		0			0	0	0	0	0	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0			0	0	0	0	0	0	0	
Reduced v/c Ratio		0.01			0.26	0.50	0.01	0.75	0.29	0.53	0.38	

Intersection Summary			
Area Type:	CBD		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 12 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay (s/veh): 18.2		Intersection LOS: B	
Intersection Capacity Utilization 79.3%		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: 5: NY-96 & Bruegger's/Kreag Road



2: Thornell Road & NY-96 Performance by lane

Lane	EB	WB	WB	NB	NB	All
Movements Served	TR	L	T	L	R	
Denied Delay (hr)						0.1
Denied Del/Veh (s)						0.2
Total Delay (hr)	0.2	0.2	0.7	0.3	0.8	2.1
Total Del/Veh (s)	1.4	4.7	3.8	27.6	9.5	4.9
Stop Delay (hr)	0.0	0.1	0.0	0.3	0.6	1.0
Stop Del/Veh (s)	0.0	2.7	0.1	26.8	7.5	2.4

4: Hitching Post Plaza/Marsh Road & NY-96 Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Delay (hr)									0.1
Denied Del/Veh (s)									0.2
Total Delay (hr)	0.2	0.9	0.0	2.0	0.0	0.0	0.8	0.2	4.2
Total Del/Veh (s)	15.6	5.3	6.9	8.4	25.1	6.4	41.2	11.2	8.8
Stop Delay (hr)	0.2	0.4	0.0	0.8	0.0	0.0	0.7	0.2	2.3
Stop Del/Veh (s)	13.7	2.5	5.0	3.2	25.8	7.2	36.0	11.7	4.9

5: NY-96 & Bruegger's/Kreag Road Performance by lane

Lane	EB	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LTR	LT	R	L	T	R	L	TR	
Denied Delay (hr)									0.6
Denied Del/Veh (s)									1.1
Total Delay (hr)	0.4	1.5	0.9	0.0	3.7	0.2	1.1	1.0	8.8
Total Del/Veh (s)	25.0	35.6	14.7	6.7	21.3	3.4	17.2	7.6	15.9
Stop Delay (hr)	0.4	1.4	0.7	0.0	2.2	0.2	1.0	0.4	6.3
Stop Del/Veh (s)	22.8	33.4	11.5	5.2	13.0	2.7	15.7	3.3	11.5

Total Network Performance

Denied Delay (hr)	0.8
Denied Del/Veh (s)	1.3
Total Delay (hr)	15.9
Total Del/Veh (s)	25.7
Stop Delay (hr)	9.8
Stop Del/Veh (s)	15.8

Intersection: 2: Thornell Road & NY-96

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	32	118	17	87	167
Average Queue (ft)	1	43	1	26	71
95th Queue (ft)	8	84	13	61	137
Link Distance (ft)	1172		1081		845
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		90		30	
Storage Blk Time (%)		1	0	20	36
Queuing Penalty (veh)		3	0	58	15

Intersection: 4: Hitching Post Plaza/Marsh Road & NY-96

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	66	211	39	337	30	42	159	95
Average Queue (ft)	22	83	7	114	2	6	55	39
95th Queue (ft)	49	173	30	261	14	28	117	82
Link Distance (ft)		1081		510	462	462	559	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	230		160					70
Storage Blk Time (%)		0		5			7	2
Queuing Penalty (veh)		0		1			5	1

Intersection: 5: NY-96 & Bruegger's/Kreag Road

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	98	190	208	105	524	200	148	254
Average Queue (ft)	36	86	79	12	228	90	86	80
95th Queue (ft)	77	148	158	50	442	211	145	192
Link Distance (ft)	729		1062		944			510
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		125		100		125	100	
Storage Blk Time (%)		2	2	0	23		7	2
Queuing Penalty (veh)		5	3	0	56		28	6

Network Summary

Network wide Queuing Penalty: 181

2: Thornell Road & NY-96 Performance by lane

Lane	EB	WB	WB	NB	NB	All
Movements Served	TR	L	T	L	R	
Denied Delay (hr)						0.1
Denied Del/Veh (s)						0.3
Total Delay (hr)	0.3	0.5	0.7	0.2	0.9	2.7
Total Del/Veh (s)	1.8	6.9	4.1	43.6	12.0	5.5
Stop Delay (hr)	0.0	0.4	0.0	0.2	0.8	1.4
Stop Del/Veh (s)	0.0	4.9	0.2	42.6	10.3	2.9

4: Hitching Post Plaza/Marsh Road & NY-96 Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Delay (hr)									0.2
Denied Del/Veh (s)									0.3
Total Delay (hr)	0.3	2.0	0.2	4.8	0.7	0.2	1.0	0.2	9.4
Total Del/Veh (s)	19.4	10.0	12.0	19.6	32.2	9.3	38.8	11.9	16.7
Stop Delay (hr)	0.3	1.1	0.2	2.6	0.7	0.2	0.8	0.3	6.2
Stop Del/Veh (s)	17.3	5.4	9.7	10.8	33.3	10.1	33.4	12.3	11.0

5: NY-96 & Bruegger's/Kreag Road Performance by lane

Lane	EB	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LTR	LT	R	L	T	R	L	TR	
Denied Delay (hr)									0.6
Denied Del/Veh (s)									1.1
Total Delay (hr)	0.1	1.1	1.4	0.0	4.3	0.2	1.3	0.9	9.2
Total Del/Veh (s)	43.5	39.4	18.2	8.1	23.2	3.3	18.6	5.9	16.1
Stop Delay (hr)	0.1	1.0	1.2	0.0	2.5	0.2	1.2	0.2	6.4
Stop Del/Veh (s)	41.1	37.3	15.3	6.5	13.7	2.7	17.4	1.6	11.2

Total Network Performance

Denied Delay (hr)	0.9
Denied Del/Veh (s)	1.4
Total Delay (hr)	22.1
Total Del/Veh (s)	32.0
Stop Delay (hr)	14.1
Stop Del/Veh (s)	20.4

Intersection: 2: Thornell Road & NY-96

Movement	EB	WB	WB	NB	NB
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	32	132	82	90	179
Average Queue (ft)	2	59	4	18	69
95th Queue (ft)	15	106	41	54	133
Link Distance (ft)	1172		1081		845
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		90		30	
Storage Blk Time (%)		2	0	16	42
Queuing Penalty (veh)		16	0	46	8

Intersection: 4: Hitching Post Plaza/Marsh Road & NY-96

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	125	283	184	520	149	76	157	95
Average Queue (ft)	33	136	50	260	54	34	64	41
95th Queue (ft)	82	243	146	472	110	62	124	87
Link Distance (ft)		1081		510	462	462	559	
Upstream Blk Time (%)				1				
Queuing Penalty (veh)				6				
Storage Bay Dist (ft)	230		160					70
Storage Blk Time (%)		1		18			10	1
Queuing Penalty (veh)		1		12			8	1

Intersection: 5: NY-96 & Bruegger's/Kreag Road

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	42	162	191	48	686	200	148	222
Average Queue (ft)	6	66	90	2	237	86	84	56
95th Queue (ft)	26	124	162	13	568	214	138	153
Link Distance (ft)	729		1062		944			510
Upstream Blk Time (%)					1			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)		125		100		125	100	
Storage Blk Time (%)		1	4		21	0	7	1
Queuing Penalty (veh)		3	4		50	0	33	1

Network Summary

Network wide Queuing Penalty: 188

APPENDIX E: LOS CALCULATIONS – FULL BUILD CONDITIONS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	1	328	0	0	213
Future Volume (vph)	1	1	328	0	0	213
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
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						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	1827	0	0	1827
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	1827	0	0	1827
Link Speed (mph)	30		35			35
Link Distance (ft)	312		708			151
Travel Time (s)	7.1		13.8			2.9
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	4%	2%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	1	1	357	0	0	232
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	357	0	0	232
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	27.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	328	0	0	213
Future Vol, veh/h	1	1	328	0	0	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	4	2	2	4
Mvmt Flow	1	1	357	0	0	232

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	588	357	0	0	357	0
Stage 1	357	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	471	688	-	-	1202	-
Stage 1	709	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	471	688	-	-	1202	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	807	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.46	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1202	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Ctrl Dly (s/v)	-	-	11.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	381	17	197	596	41	288
Future Volume (vph)	381	17	197	596	41	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)			110		90	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.994					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1793	0	1703	1827	1752	1553
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1793	0	1703	1827	1752	1553
Link Speed (mph)	30			30	35	
Link Distance (ft)	1210			475	151	
Travel Time (s)	27.5			10.8	2.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	5%	13%	6%	4%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	410	18	212	641	44	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	428	0	212	641	44	310
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	381	17	197	596	41	288
Future Vol, veh/h	381	17	197	596	41	288
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	5	13	6	4	3	4
Mvmt Flow	410	18	212	641	44	310

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	428	0	1483	419
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	1065	-
Critical Hdwy	-	-	4.16	-	6.43	6.24
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.254	-	3.527	3.336
Pot Cap-1 Maneuver	-	-	1110	-	137	630
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	330	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1110	-	111	630
Mov Cap-2 Maneuver	-	-	-	-	111	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	267	-

Approach	EB	WB	NE
HCM Ctrl Dly, s/v	0	2.24	21.27
HCM LOS			C

Minor Lane/Major Mvmt	NELn1	NELn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	111	630	-	-	1110	-
HCM Lane V/C Ratio	0.398	0.492	-	-	0.191	-
HCM Ctrl Dly (s/v)	57.5	16.1	-	-	9	-
HCM Lane LOS	F	C	-	-	A	-
HCM 95th %tile Q(veh)	1.7	2.7	-	-	0.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	668	1	3	790	2	6
Future Volume (vph)	668	1	3	790	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.895	
Flt Protected					0.989	
Satd. Flow (prot)	1827	0	0	1827	1649	0
Flt Permitted					0.989	
Satd. Flow (perm)	1827	0	0	1827	1649	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	475			682	311	
Travel Time (s)	10.8			15.5	7.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	2%	2%	4%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	726	1	3	859	2	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	727	0	0	862	9	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	668	1	3	790	2	6
Future Vol, veh/h	668	1	3	790	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	4	2	2	4	2	2
Mvmt Flow	726	1	3	859	2	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	727	0	1592	727
Stage 1	-	-	-	-	727	-
Stage 2	-	-	-	-	865	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	876	-	118	424
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	412	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	876	-	117	424
Mov Cap-2 Maneuver	-	-	-	-	117	-
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	409	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.03	19.54
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	256	-	-	7	-
HCM Lane V/C Ratio	0.034	-	-	0.004	-
HCM Ctrl Dly (s/v)	19.5	-	-	9.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

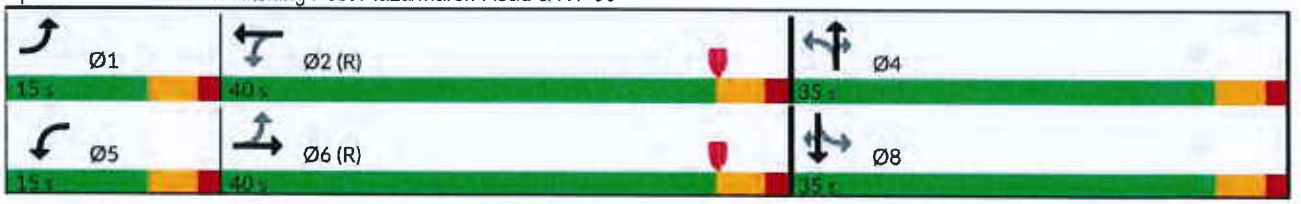
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	622	3	12	737	101	3	0	6	71	3	62
Future Volume (vph)	43	622	3	12	737	101	3	0	6	71	3	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		0	160		0	0		0	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	80			25			25			25		
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
Ped Bike Factor												
Frt		0.999			0.982				0.850			0.850
Flt Protected	0.950			0.950				0.950			0.954	
Satd. Flow (prot)	1805	1806	0	1421	1781	0	0	1805	1214	0	1714	1509
Flt Permitted	0.195			0.353				0.705			0.732	
Satd. Flow (perm)	370	1806	0	528	1781	0	0	1340	1214	0	1315	1509
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					9				85			85
Link Speed (mph)		30			30			10			30	
Link Distance (ft)		682			592			497			595	
Travel Time (s)		15.5			13.5			33.9			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	33%	27%	5%	3%	0%	0%	33%	6%	0%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	47	676	3	13	801	110	3	0	7	77	3	67
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	679	0	13	911	0	0	3	7	0	80	67
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	30.0		10.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
Total Split (s)	15.0	40.0		15.0	40.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	16.7%	44.4%		16.7%	44.4%		38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Maximum Green (s)	10.0	35.0		10.0	35.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		18.0			18.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	70.4	70.2		68.0	66.0			11.7	11.7		11.7	11.7
Actuated g/C Ratio	0.78	0.78		0.76	0.73			0.13	0.13		0.13	0.13
v/c Ratio	0.13	0.48		0.03	0.70			0.02	0.03		0.47	0.25
Control Delay (s/veh)	3.9	7.3		2.6	10.5			32.7	0.2		45.0	7.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	3.9	7.3		2.6	10.5			32.7	0.2		45.0	7.7
LOS	A	A		A	B			C	A		D	A
Approach Delay (s/veh)		7.0			10.3			9.9			28.0	
Approach LOS		A			B			A			C	
Queue Length 50th (ft)	5	111		1	127			2	0		43	0
Queue Length 95th (ft)	15	335		m3	#320			9	0		84	26
Internal Link Dist (ft)		602			512			417			515	
Turn Bay Length (ft)	230			160								70
Base Capacity (vph)	452	1409		515	1308			446	461		438	559
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.10	0.48		0.03	0.70			0.01	0.02		0.18	0.12

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay (s/veh): 10.4 Intersection LOS: B
Intersection Capacity Utilization 74.1% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hitching Post Plaza/Marsh Road & NY-96



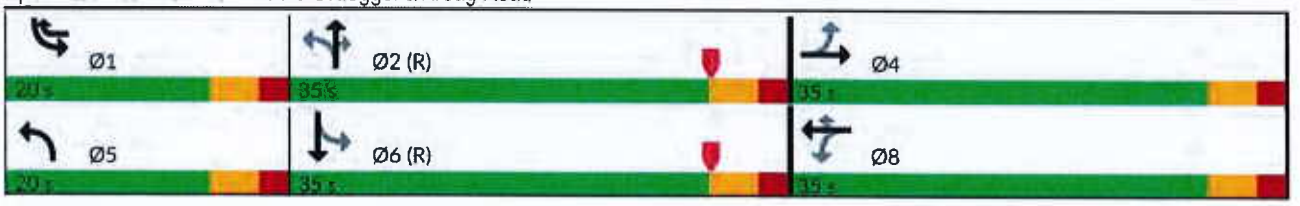
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	15	27	133	16	221	19	592	227	231	400	14
Future Volume (vph)	19	15	27	133	16	221	19	592	227	231	400	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	125		0	100		125	100		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			75			25			50		
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
Ped Bike Factor												
Frt		0.940				0.850			0.850		0.995	
Flt Protected		0.985			0.957		0.950			0.950		
Satd. Flow (prot)	0	1728	0	0	1786	1495	1805	1827	1568	1703	1820	0
Flt Permitted		0.873			0.767		0.507			0.222		
Satd. Flow (perm)	0	1532	0	0	1432	1495	963	1827	1568	398	1820	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29				84			137		2	
Link Speed (mph)		30			35			30			30	
Link Distance (ft)		765			1110			973			592	
Travel Time (s)		17.4			21.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	4%	2%	0%	8%	0%	4%	3%	6%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	16	29	141	17	235	20	630	241	246	426	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	158	235	20	630	241	246	441	0
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	
Minimum Split (s)	32.5	32.5		32.5	32.5	10.5	10.5	32.5	32.5	10.5	32.5	
Total Split (s)	35.0	35.0		35.0	35.0	20.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	22.2%	22.2%	38.9%	38.9%	22.2%	38.9%	
Maximum Green (s)	29.5	29.5		29.5	29.5	14.5	14.5	29.5	29.5	14.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Don't Walk (s)	20.0	20.0						20.0	20.0		20.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)		15.3			15.3	33.9	50.2	45.1	45.1	63.7	59.4	
Actuated g/C Ratio		0.17			0.17	0.38	0.56	0.50	0.50	0.71	0.66	
v/c Ratio		0.23			0.65	0.38	0.03	0.69	0.28	0.52	0.37	
Control Delay (s/veh)		20.6			46.4	12.7	7.2	25.5	8.6	14.5	8.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		20.6			46.4	12.7	7.2	25.5	8.6	14.5	8.6	
LOS		C			D	B	A	C	A	B	A	
Approach Delay (s/veh)		20.6			26.2			20.5			10.7	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		18			85	58	3	261	30	36	71	
Queue Length 95th (ft)		48			136	87	12	#570	99	147	161	
Internal Link Dist (ft)		685			1030			893			512	
Turn Bay Length (ft)							100		125	100		
Base Capacity (vph)		521			469	655	768	915	854	508	1202	
Starvation Cap Reductn		0			0	0	0	0	0	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0			0	0	0	0	0	0	0	
Reduced v/c Ratio		0.12			0.34	0.36	0.03	0.69	0.28	0.48	0.37	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 87 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay (s/veh): 18.3 Intersection LOS: B
Intersection Capacity Utilization 72.6% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: NY-96 & Bruegger's/Kreag Road



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	1	305	1	1	297
Future Volume (vph)	1	1	305	1	1	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%		0%			0%
Storage Length (ft)	0	0		0	0	
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						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	1863	0	0	1863
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	1863	0	0	1863
Link Speed (mph)	30		35			35
Link Distance (ft)	467		708			153
Travel Time (s)	10.6		13.8			3.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	1	1	321	1	1	313
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	322	0	0	314
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	305	1	1	297
Future Vol, veh/h	1	1	305	1	1	297
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	321	1	1	313

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	636	322	0	0	322	0
Stage 1	322	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	442	719	-	-	1238	-
Stage 1	735	-	-	-	-	-
Stage 2	740	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	441	719	-	-	1238	-
Mov Cap-2 Maneuver	441	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.61	0	0.03
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	547	6	-
HCM Lane V/C Ratio	-	-	0.004	0.001	-
HCM Ctrl Dly (s/v)	-	-	11.6	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	502	34	265	627	21	285
Future Volume (vph)	502	34	265	627	21	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	90		0	0
Storage Lanes		0	1		1	1
Taper Length (ft)			110		90	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1867	0	1787	1881	1805	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1867	0	1787	1881	1805	1615
Link Speed (mph)	30			30	35	
Link Distance (ft)	1210			475	153	
Travel Time (s)	27.5			10.8	3.0	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	0%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	612	41	323	765	26	348
Shared Lane Traffic (%)						
Lane Group Flow (vph)	653	0	323	765	26	348
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 56.5%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	8.7

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	502	34	265	627	21	285
Future Vol, veh/h	502	34	265	627	21	285
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	90	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	1	0	1	1	0	0
Mvmt Flow	612	41	323	765	26	348

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	654	0	2044	633
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	1411	-
Critical Hdwy	-	-	4.11	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.209	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	938	-	63	483
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	228	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	938	-	41	483
Mov Cap-2 Maneuver	-	-	-	-	41	-
Stage 1	-	-	-	-	533	-
Stage 2	-	-	-	-	149	-

Approach	EB	WB	NE
HCM Ctrl Dly, s/v	0	3.22	40.06
HCM LOS			E

Minor Lane/Major Mvmt	NELn1	NELn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	41	483	-	-	938	-
HCM Lane V/C Ratio	0.624	0.719	-	-	0.345	-
HCM Ctrl Dly (s/v)	186.6	29.3	-	-	10.8	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q(veh)	2.3	5.7	-	-	1.5	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	785	2	6	891	1	4
Future Volume (vph)	785	2	6	891	1	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Taper Length (ft)			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt					0.892	
Flt Protected					0.990	
Satd. Flow (prot)	1863	0	0	1863	1645	0
Flt Permitted					0.990	
Satd. Flow (perm)	1863	0	0	1863	1645	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	475			682	435	
Travel Time (s)	10.8			15.5	9.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	826	2	6	938	1	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	828	0	0	944	5	0
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 61.7%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	785	2	6	891	1	4
Future Vol, veh/h	785	2	6	891	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	826	2	6	938	1	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	828	0	1778	827
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	951	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	803	-	91	371
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	376	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	803	-	89	371
Mov Cap-2 Maneuver	-	-	-	-	89	-
Stage 1	-	-	-	-	429	-
Stage 2	-	-	-	-	369	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.06	21.21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	227	-	-	12	-
HCM Lane V/C Ratio	0.023	-	-	0.008	-
HCM Ctrl Dly (s/v)	21.2	-	-	9.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

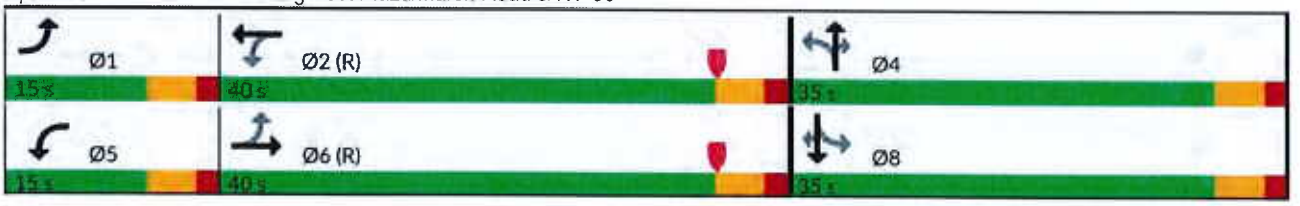
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	662	13	68	762	144	56	24	64	77	19	80
Future Volume (vph)	64	662	13	68	762	144	56	24	64	77	19	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	230		0	160		0	0		0	0		70
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	80			25			25			25		
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
Ped Bike Factor												
Frt		0.997			0.976				0.850			0.850
Flt Protected	0.950			0.950				0.966			0.962	
Satd. Flow (prot)	1624	1688	0	1624	1655	0	0	1652	1454	0	1645	1454
Flt Permitted	0.161			0.299				0.730			0.713	
Satd. Flow (perm)	275	1688	0	511	1655	0	0	1248	1454	0	1219	1454
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			12				85			85
Link Speed (mph)		30			30			10			30	
Link Distance (ft)		682			592			497			595	
Travel Time (s)		15.5			13.5			33.9			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	67	690	14	71	794	150	58	25	67	80	20	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	704	0	71	944	0	0	83	67	0	100	83
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	10.0	30.0		10.0	30.0		30.0	30.0	30.0	30.0	30.0	30.0
Total Split (s)	15.0	40.0		15.0	40.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	16.7%	44.4%		16.7%	44.4%		38.9%	38.9%	38.9%	38.9%	38.9%	38.9%
Maximum Green (s)	10.0	35.0		10.0	35.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Walk Time (s)		7.0			7.0		7.0	7.0	7.0	7.0	7.0	7.0
Flash Don't Walk (s)		18.0			18.0		18.0	18.0	18.0	18.0	18.0	18.0
Pedestrian Calls (#/hr)		0			0		0	0	0	0	0	0
Act Effct Green (s)	65.9	62.1		65.8	62.1			13.1	13.1		13.1	13.1
Actuated g/C Ratio	0.73	0.69		0.73	0.69			0.15	0.15		0.15	0.15
v/c Ratio	0.23	0.60		0.16	0.82			0.46	0.24		0.56	0.29
Control Delay (s/veh)	5.9	14.0		7.2	23.9			42.5	7.0		47.6	10.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	5.9	14.0		7.2	23.9			42.5	7.0		47.6	10.0
LOS	A	B		A	C			D	A		D	A
Approach Delay (s/veh)		13.3			22.8			26.7			30.5	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	8	226		12	330			44	0		54	0
Queue Length 95th (ft)	23	440		m36	#792			84	25		99	36
Internal Link Dist (ft)		602			512			417			515	
Turn Bay Length (ft)	230			160								70
Base Capacity (vph)	361	1165		516	1145			416	541		406	541
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.19	0.60		0.14	0.82			0.20	0.12		0.25	0.15

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay (s/veh): 20.3 Intersection LOS: C
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Hitching Post Plaza/Marsh Road & NY-96



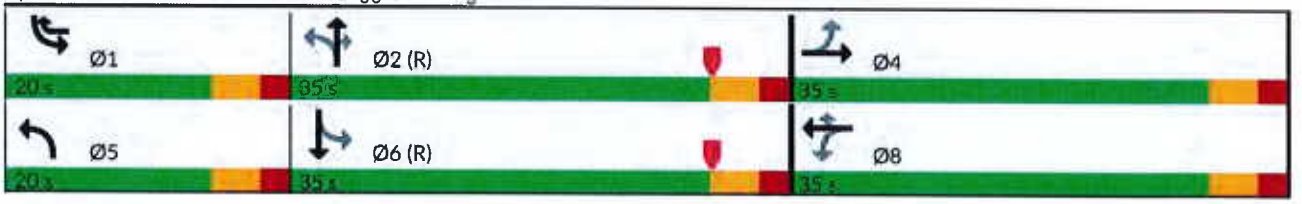
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	3	0	102	1	277	4	684	242	260	482	0
Future Volume (vph)	4	3	0	102	1	277	4	684	242	260	482	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	125		0	100		125	100		0
Storage Lanes	0		0	1		1	1		1	1		0
Taper Length (ft)	25			75			25			50		
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
Ped Bike Factor												
Frt						0.850			0.850			
Flt Protected		0.972			0.953		0.950			0.950		
Satd. Flow (prot)	0	1662	0	0	1614	1439	1624	1693	1439	1608	1693	0
Flt Permitted		0.838			0.724		0.486			0.200		
Satd. Flow (perm)	0	1433	0	0	1226	1439	831	1693	1439	339	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						65			126			
Link Speed (mph)		30			35			30			30	
Link Distance (ft)		765			1110			973			592	
Travel Time (s)		17.4			21.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	1%	0%	1%	0%	1%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	4	3	0	103	1	280	4	691	244	263	487	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	104	280	4	691	244	263	487	0
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2		2	6		
Detector Phase	4	4		8	8	1	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	
Minimum Split (s)	32.5	32.5		30.0	30.0	10.5	10.5	32.5	32.5	10.5	32.5	
Total Split (s)	35.0	35.0		35.0	35.0	20.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	22.2%	22.2%	38.9%	38.9%	22.2%	38.9%	
Maximum Green (s)	29.5	29.5		29.5	29.5	14.5	14.5	29.5	29.5	14.5	29.5	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.5			5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Lead/Lag						Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0						7.0	7.0		7.0	
Flash Don't Walk (s)	20.0	20.0						20.0	20.0		20.0	
Pedestrian Calls (#/hr)	0	0						0	0		0	
Act Effct Green (s)		11.8			12.0	30.6	53.4	48.4	48.4	69.3	68.3	
Actuated g/C Ratio		0.13			0.13	0.34	0.59	0.54	0.54	0.77	0.76	
v/c Ratio		0.04			0.64	0.53	0.01	0.76	0.29	0.55	0.38	
Control Delay (s/veh)		31.1			53.3	19.4	6.5	27.5	8.9	15.6	3.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		31.1			53.3	19.4	6.5	27.5	8.9	15.6	3.4	
LOS		C			D	B	A	C	A	B	A	
Approach Delay (s/veh)		31.1			28.6			22.6			7.7	
Approach LOS		C			C			C			A	
Queue Length 50th (ft)		4			57	91	1	307	34	26	39	
Queue Length 95th (ft)		15			102	128	4	#651	104	113	65	
Internal Link Dist (ft)		685			1030			893			512	
Turn Bay Length (ft)							100		125	100		
Base Capacity (vph)		469			401	552	708	910	832	496	1284	
Starvation Cap Reductn		0			0	0	0	0	0	0	0	
Spillback Cap Reductn		0			0	0	0	0	0	0	0	
Storage Cap Reductn		0			0	0	0	0	0	0	0	
Reduced v/c Ratio		0.01			0.26	0.51	0.01	0.76	0.29	0.53	0.38	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 12 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay (s/veh): 18.3 Intersection LOS: B
Intersection Capacity Utilization 79.6% 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: 5: NY-96 & Bruegger's/Kreag Road



1: Thornell Road & Proposed Access Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Delay (hr)				0.0
Denied Del/Veh (s)				0.2
Total Delay (hr)	0.0	0.2	0.0	0.2
Total Del/Veh (s)	12.4	1.9	0.5	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	12.4	0.0	0.3	0.2

2: Thornell Road & NY-96 Performance by lane

Lane	EB	WB	WB	NE	NE	All
Movements Served	TR	L	T	L	R	
Denied Delay (hr)						0.0
Denied Del/Veh (s)						0.1
Total Delay (hr)	0.2	0.3	0.2	0.3	0.6	1.6
Total Del/Veh (s)	1.5	5.7	1.2	26.7	7.3	3.7
Stop Delay (hr)	0.0	0.2	0.0	0.3	0.7	1.2
Stop Del/Veh (s)	0.0	3.7	0.0	25.7	8.2	2.7

3: Proposed Access & NY-96 Performance by lane

Lane	EB	WB	NB	All
Movements Served	TR	LT	LR	
Denied Delay (hr)				0.0
Denied Del/Veh (s)				0.0
Total Delay (hr)	0.1	0.5	0.0	0.6
Total Del/Veh (s)	0.8	2.0	8.3	1.5
Stop Delay (hr)	0.1	0.0	0.0	0.1
Stop Del/Veh (s)	0.3	0.1	8.1	0.2

4: Hitching Post Plaza/Marsh Road & NY-96 Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Delay (hr)									0.1
Denied Del/Veh (s)									0.2
Total Delay (hr)	0.2	0.9	0.0	1.9	0.0	0.0	0.9	0.2	4.1
Total Del/Veh (s)	15.4	5.1	8.0	7.9	20.5	6.1	41.0	10.4	8.6
Stop Delay (hr)	0.2	0.4	0.0	0.7	0.0	0.0	0.8	0.2	2.3
Stop Del/Veh (s)	13.5	2.5	6.3	3.1	21.1	7.1	36.1	10.8	4.9

5: NY-96 & Bruegger's/Kreag Road Performance by lane

Lane	EB	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LTR	LT	R	L	T	R	L	TR	
Denied Delay (hr)									0.6
Denied Del/Veh (s)									1.1
Total Delay (hr)	0.5	1.5	1.0	0.0	3.6	0.2	1.1	1.0	8.9
Total Del/Veh (s)	28.6	36.0	14.6	6.3	21.4	3.4	16.8	7.6	15.9
Stop Delay (hr)	0.5	1.4	0.7	0.0	2.2	0.2	1.0	0.4	6.6
Stop Del/Veh (s)	26.6	33.7	11.4	4.8	13.5	2.8	15.4	3.1	11.7

Total Network Performance

Denied Delay (hr)	0.8
Denied Del/Veh (s)	1.2
Total Delay (hr)	16.2
Total Del/Veh (s)	25.6
Stop Delay (hr)	10.3
Stop Del/Veh (s)	16.2

Intersection: 1: Thornell Road & Proposed Access

Movement	WB	NB
Directions Served	LR	TR
Maximum Queue (ft)	27	23
Average Queue (ft)	2	1
95th Queue (ft)	16	10
Link Distance (ft)	270	675
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Thornell Road & NY-96

Movement	EB	WB	WB	NE	NE
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	43	109	62	65	136
Average Queue (ft)	2	50	3	20	49
95th Queue (ft)	20	89	39	48	100
Link Distance (ft)	1156		414	76	76
Upstream Blk Time (%)				0	4
Queuing Penalty (veh)				0	6
Storage Bay Dist (ft)		90			
Storage Blk Time (%)		1	0		
Queuing Penalty (veh)		4	0		

Intersection: 3: Proposed Access & NY-96

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	40	30
Average Queue (ft)	2	6
95th Queue (ft)	17	26
Link Distance (ft)	621	276
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Hitching Post Plaza/Marsh Road & NY-96

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	60	247	86	299	31	59	150	94
Average Queue (ft)	22	90	12	119	2	11	56	40
95th Queue (ft)	52	189	50	256	16	42	117	87
Link Distance (ft)		621		510	463	463	559	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	230		160					70
Storage Blk Time (%)		0		4			8	1
Queuing Penalty (veh)		0		1			5	1

Intersection: 5: NY-96 & Bruegger's/Kreag Road

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	98	179	207	105	527	200	149	267
Average Queue (ft)	43	90	82	14	217	92	84	76
95th Queue (ft)	89	151	163	60	453	215	142	195
Link Distance (ft)	729		1062		944			510
Upstream Blk Time (%)					0			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)		125		100		125	100	
Storage Blk Time (%)		3	3		23		7	2
Queuing Penalty (veh)		6	4		56		28	4

Network Summary

Network wide Queuing Penalty: 115

1: Thornell Road & Proposed Access Performance by lane

Lane	WB	NB	SB	All
Movements Served	LR	TR	LT	
Denied Delay (hr)				0.0
Denied Del/Veh (s)				0.1
Total Delay (hr)	0.0	0.4	0.1	0.4
Total Del/Veh (s)	12.2	4.3	0.6	2.5
Stop Delay (hr)	0.0	0.2	0.0	0.2
Stop Del/Veh (s)	12.0	2.3	0.3	1.3

2: Thornell Road & NY-96 Performance by lane

Lane	EB	WB	WB	NE	NE	All
Movements Served	TR	L	T	L	R	
Denied Delay (hr)						0.1
Denied Del/Veh (s)						0.3
Total Delay (hr)	0.3	0.7	0.3	0.5	0.8	2.6
Total Del/Veh (s)	1.9	9.4	1.7	48.0	9.8	5.1
Stop Delay (hr)	0.0	0.6	0.0	0.5	0.9	1.9
Stop Del/Veh (s)	0.0	7.4	0.1	47.5	10.8	3.8

3: Proposed Access & NY-96 Performance by lane

Lane	EB	WB	NB	All
Movements Served	TR	LT	LR	
Denied Delay (hr)				0.0
Denied Del/Veh (s)				0.0
Total Delay (hr)	0.2	0.7	0.0	0.9
Total Del/Veh (s)	0.9	2.6	10.6	1.8
Stop Delay (hr)	0.1	0.1	0.0	0.1
Stop Del/Veh (s)	0.3	0.3	10.4	0.3

4: Hitching Post Plaza/Marsh Road & NY-96 Performance by lane

Lane	EB	EB	WB	WB	NB	NB	SB	SB	All
Movements Served	L	TR	L	TR	LT	R	LT	R	
Denied Delay (hr)									0.3
Denied Del/Veh (s)									0.6
Total Delay (hr)	0.5	2.2	0.2	7.2	0.6	0.2	1.0	0.4	12.3
Total Del/Veh (s)	24.5	10.8	13.3	27.5	30.8	10.1	36.3	15.9	20.9
Stop Delay (hr)	0.4	1.2	0.2	4.1	0.6	0.2	0.9	0.4	8.1
Stop Del/Veh (s)	22.3	6.2	10.8	15.8	31.7	10.9	31.0	16.3	13.8

5: NY-96 & Bruegger's/Kreag Road Performance by lane

Lane	EB	WB	WB	NB	NB	NB	SB	SB	All
Movements Served	LTR	LT	R	L	T	R	L	TR	
Denied Delay (hr)									1.3
Denied Del/Veh (s)									2.2
Total Delay (hr)	0.1	1.2	1.7	0.0	9.3	0.3	1.6	1.1	15.2
Total Del/Veh (s)	34.8	38.8	21.5	4.5	46.2	4.4	23.0	7.2	25.3
Stop Delay (hr)	0.1	1.1	1.4	0.0	6.2	0.2	1.5	0.3	10.9
Stop Del/Veh (s)	32.3	36.6	18.1	2.8	30.9	3.7	21.9	2.2	18.2

Total Network Performance

Denied Delay (hr)	1.8
Denied Del/Veh (s)	2.5
Total Delay (hr)	32.2
Total Del/Veh (s)	43.0
Stop Delay (hr)	21.4
Stop Del/Veh (s)	28.5

Intersection: 1: Thornell Road & Proposed Access

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	21	152	42
Average Queue (ft)	1	14	2
95th Queue (ft)	11	84	15
Link Distance (ft)	426	675	78
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Thornell Road & NY-96

Movement	EB	WB	WB	NE	NE
Directions Served	TR	L	T	L	R
Maximum Queue (ft)	31	172	166	65	100
Average Queue (ft)	2	73	11	15	51
95th Queue (ft)	14	134	78	46	95
Link Distance (ft)	1156		416	78	78
Upstream Blk Time (%)				2	5
Queuing Penalty (veh)				3	8
Storage Bay Dist (ft)		90			
Storage Blk Time (%)		5	0		
Queuing Penalty (veh)		33	1		

Intersection: 3: Proposed Access & NY-96

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	166	31
Average Queue (ft)	11	4
95th Queue (ft)	92	21
Link Distance (ft)	618	401
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Hitching Post Plaza/Marsh Road & NY-96

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	133	327	185	522	134	75	159	95
Average Queue (ft)	39	146	64	354	49	34	65	51
95th Queue (ft)	91	281	175	574	103	65	125	91
Link Distance (ft)		618		510	464	464	559	
Upstream Blk Time (%)				2				
Queuing Penalty (veh)				15				
Storage Bay Dist (ft)	230		160					70
Storage Blk Time (%)		2	0	27			10	2
Queuing Penalty (veh)		1	0	18			8	2

Intersection: 5: NY-96 & Bruegger's/Kreag Road

Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	TR
Maximum Queue (ft)	29	141	203	86	892	200	149	289
Average Queue (ft)	5	67	104	4	421	120	95	78
95th Queue (ft)	22	120	174	35	907	252	151	222
Link Distance (ft)	729		1062		944			510
Upstream Blk Time (%)					7			
Queuing Penalty (veh)					0			
Storage Bay Dist (ft)		125		100		125	100	
Storage Blk Time (%)		1	5		33	0	12	1
Queuing Penalty (veh)		2	5		80	0	56	1

Network Summary

Network wide Queuing Penalty: 232