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## Traffic Impact Study

Hudson Crossing Industrial Park  
(Formerly Bradley Corporate Park)

Buildings 200-400 Oritani Drive  
Town of Orangetown, Rockland County, New York

December 5, 2019

Prepared For  
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MC Project No. 19003643A





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## I. INTRODUCTION

### A. PROJECT DESCRIPTION AND LOCATION

(Figure No. 1)

The scope of this study is to evaluate the traffic impacts associated with the use of two existing building totaling some 173,000 s.f. (200-400 Oritani Drive), located in Hudson Crossing Industrial Park (formally known as Bradley Corporate Park). The two buildings are currently used for temporary car storage but could be used as a typical warehouse (ITE Land Use Code 150) or as a High-Cube Parcel Hub Warehouse (ITE Land Use Code 156). Note the current proposal is for use by Amazon, which is a high cube use.

Hudson Crossing Industrial Park has its primary access from the signalized intersection of Route 303/Bradley Parkway. There are two secondary access points, a right turn in/out driveway to Route 303 located north of the signalized access to Route 303 and a driveway to Western Highway. No new access points are proposed in this study.

Route 303 is a four-lane roadway under the jurisdiction of the New York State Department of Transportation (NYSDOT). Within two miles north of the site, it connects with Route 59 and the NYS Thruway. Within three miles south of the site, it connects to Palisades Interstate Parkway and several east/west county roads, including Erie Street and Orangeburg Road.

Western Highway is a two lane north/south roadway connection with Route 59 in the Town of Clarkstown (north of the site) with several east/west county roads including Erie Street, located south of the site.

### B. YEAR 2019 EXISTING TRAFFIC VOLUMES

(Figures No. 2, 3, 4 and 5)

In order to establish existing and future conditions, intersection turning movement counts were conducted on Thursday, November 7, 2019 and Thursday, November 14, 2019 at the following locations:

- Route 303 and Corporate Drive
- Route 303 and Bradley Parkway
- Route 303 and Erie Street
- Western Highway and Corporate Drive

Based on a review of the turning movement traffic counts, the peak hours were identified as follows.

Weekday Peak AM Hour	7:30 AM – 8:30 AM
Weekday Peak PM Hour	4:30 AM – 5:30 PM

The results of these counts are shown graphically in Figures No. 2 and 3.

The information collected was also used to establish the distribution of traffic for the existing facility, as shown on Figures No. 4 and 5. It is anticipated that this distribution will apply for both Build conditions being evaluated.

#### **C. YEAR 2021 FUTURE TRAFFIC VOLUMES**

*(Figures No. 6, 7, 8 and 9 and Table No. 1)*

There is the potential that either of the warehouse uses could be open and in full operation within two (2) years. Thus, the Design Year for analysis purposes is 2021. To estimate the Design Year background traffic volumes, the existing volumes were increased at a rate of 1% per year (total of 2%) to account for normal growth in the corridor. Added to these projections would be traffic that could be generated by existing buildings that would be in full operation by the design year.

In this case, there are two buildings that could be occupied (200-400 Oritani Drive). For analysis purposes, we have assumed the typical warehouse (ITE 150) use as the Build "A" with the High-Cube Parcel delivery (ITE 156) use as Build "B". The traffic to be generated by each of these two uses are shown in Table 1.

Note that the high cube parcel delivery (ITE 156) use has been replaced by projected traffic volume supplied by Amazon, which are higher than the ITE use. These volumes are shown graphically on Figures No. 6 and 7 for Build "A" and Figures No. 8 and 9 for Build "B".

#### **D. DESCRIPTION OF ANALYSIS PROCEDURES**

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

- Signalized Intersection Capacity Analysis

The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the *Highway Capacity Manual, 6<sup>th</sup> Edition, dated 2016*, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service “A” represents the best condition and a Level of Service “F” represents the worst condition. A Level of Service “C” is generally used as a design standard while a Level of Service “D” is acceptable during peak periods. A Level of Service “E” represents an operation near capacity. In order to identify an intersection’s Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

- Unsignalized Intersection Capacity Analysis

The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the *Highway Capacity Manual, 6<sup>th</sup> Edition, dated 2016*. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix “C” of this report.

## **E. RESULTS OF ANALYSIS**

(Tables No. 2 and 3)

Capacity analyses which take into consideration appropriate truck percentages, pedestrian activity, lane widths, roadway grades and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below is a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service.

Tables No. 2 and 3 summarizes the results of the capacity analysis for the Year 2019 Existing, Year 2021 Build “A” and Year 2021 Build “B” conditions. Appendix “D”

contains copies of the capacity analysis that also indicate the existing geometrics and other characteristics for each of the individual intersections studied.

1. NYS Route 303 and Bradley Parkway

NYS Route 303 and Bradley Parkway intersect at a full-movement, signalized intersection. The north and southbound NYS Route 303 approaches each consist of a left-turn/through and through/right-turn lanes, while the east and westbound Bradley Parkway approaches both consist of a single lane serving all turning movements. Note that the eastbound approach (exiting Hudson Crossing Industrial Park) is 20' wide providing sufficient width to provide for a right and left turn lane. The signal operation as a fixed time with the observed timings used in all analyses.

Capacity analysis conducted at this intersection utilizing the Year 2019 Existing Traffic Volumes indicates that the intersection is currently operating at an overall Level of Service “B” or “C” during the Weekday Peak AM and Peak PM hours.

The capacity analysis using the Year 2021 Build “A” and Year 2021 Build “B” Traffic Volumes indicates that the intersection is projected to continue to operate at the same overall Levels of Service under the future conditions.

2. NYS Route 303 and East/West Erie Street

NYS Route 303 and East/West Erie Street intersect at a signalized intersection. The eastbound/westbound Erie Street approaches to this intersection each consist of one lane for left, through and right turn movements. The southbound Route 303 approach consists of two through lanes, a right lane and a left turn lane. The northbound Route 303 approach consist of a left turn lane, one through and one through/right lane. Note the signal is actuated, which permits variable cycle lengths, green intervals, etc. The timings are based on observations of the existing signal during peak hours and has been used for all conditions.

Capacity analysis conducted at this intersection indicates that utilizing the Year 2019 Existing Traffic Volumes, the overall intersection will operate at a Level of Service “B” for the AM and PM Peak Hours.

The capacity analysis was recomputed using the Year 2021 Build “A” and Build “B” Traffic Volumes. This intersection is projected to continue to operate at the same Level of Service “B”.

3. NYS Route 303 and Corporate Drive

This location is a right turn in/out driveway. Under all conditions, Route 303 will operate a Level of Service "A" with the driveway operating at a Level of Service "C".

4. Western Avenue and Existing Site Driveway

The existing Site Driveway to Western Avenue intersects at an unsignalized "T" intersection. Each approach to the intersection will consist of a single lane serving all turning movements.

The capacity analysis indicates that the intersection will operate at a Level of Service "B" or better under all conditions.

**F. SUMMARY AND CONCLUSION**

Based on the above analysis, similar Levels of Service and delays will be experienced at the area intersections under either of the Build conditions. Thus, the traffic expected to be generated by the proposed Amazon facility is not anticipated to have a significant impact in the overall operation of the study area roadway network.



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HUDSON CROSSING INDUSTRIAL PARK  
MC Project No.: 19003643A  
Appendix

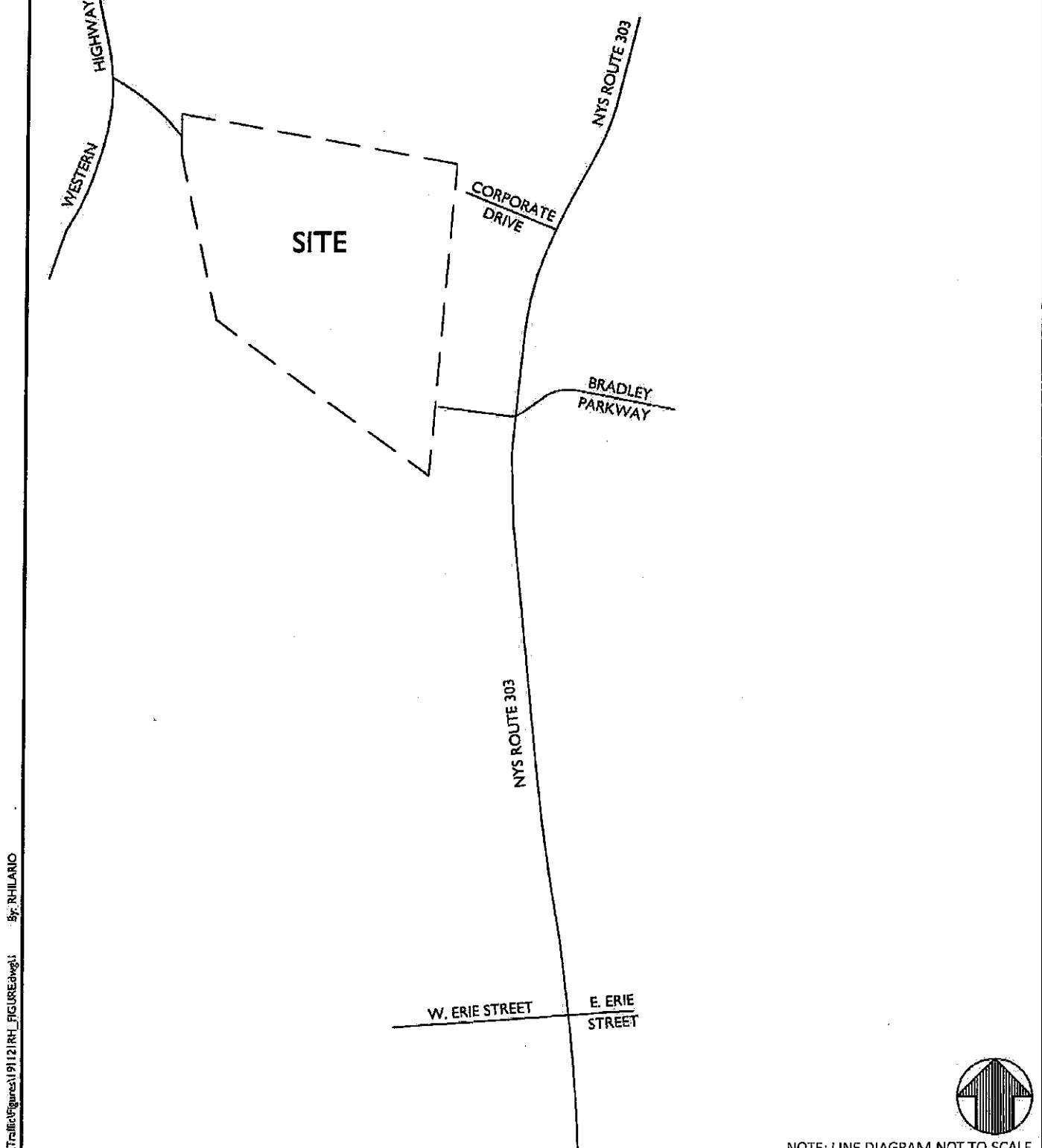
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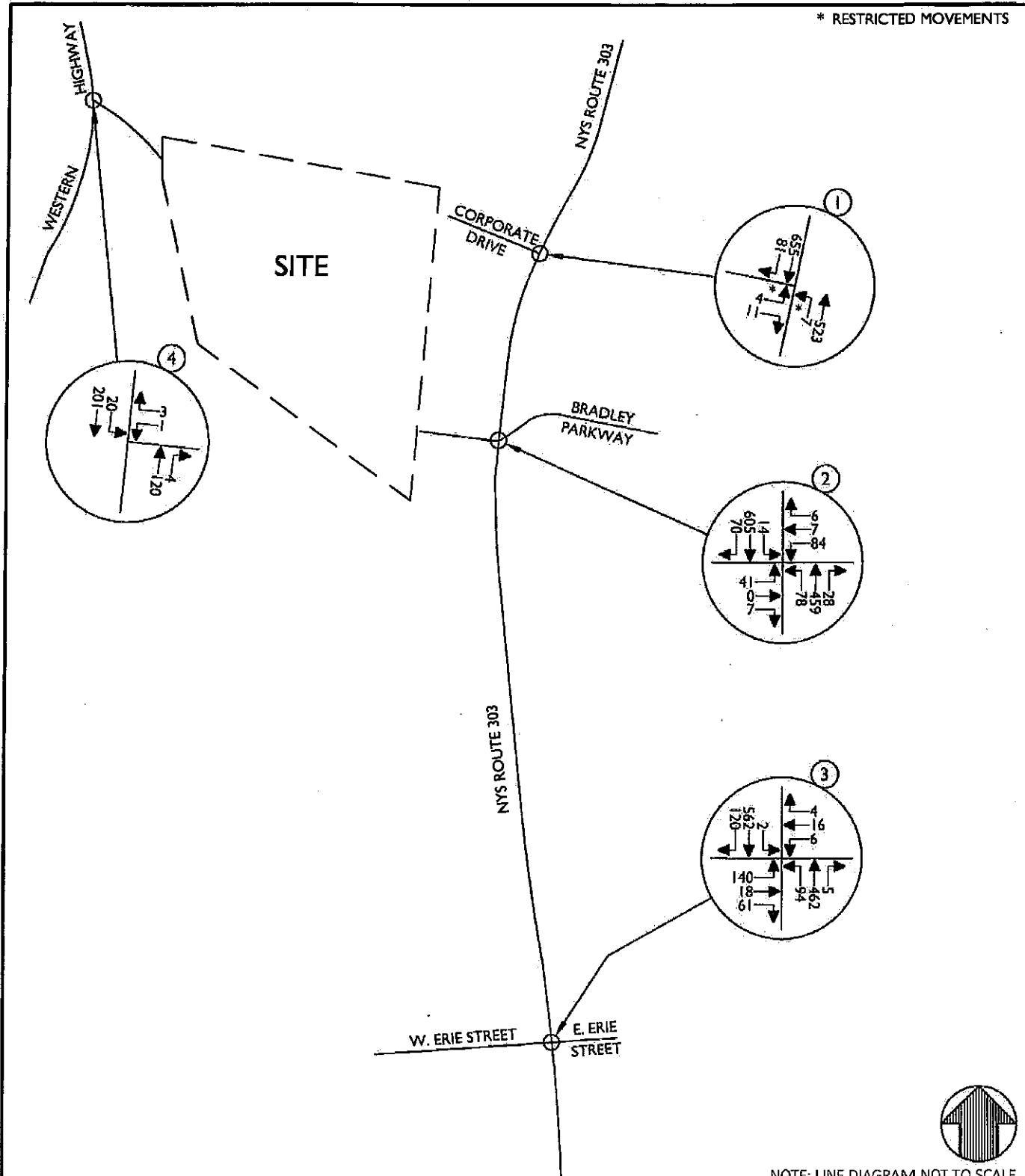
**APPENDIX A**

**FIGURES**



NOTE: LINE DIAGRAM NOT TO SCALE

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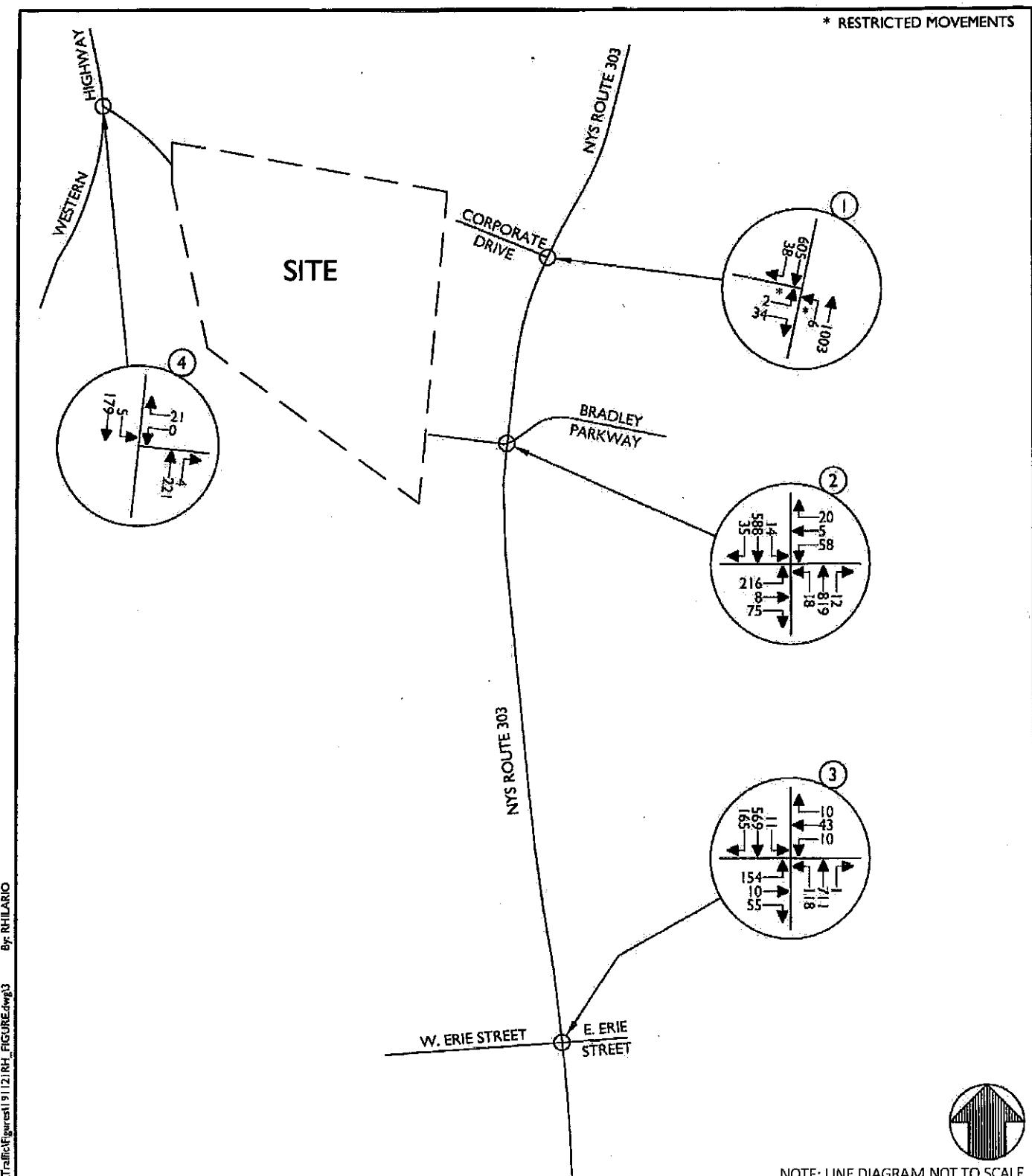
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PROJECT NUMBER: 19003643A DRAWING NAME: 19112RH FIGURE

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2019 EXISTING TRAFFIC VOLUMES  
WEEKDAY PEAK AM HOUR

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By: RHILARIO

1463-A\_Bradley C.P. 200-400 OrangetownReport(TrafficImpactReport)191121RH\_FIGURE1wg3

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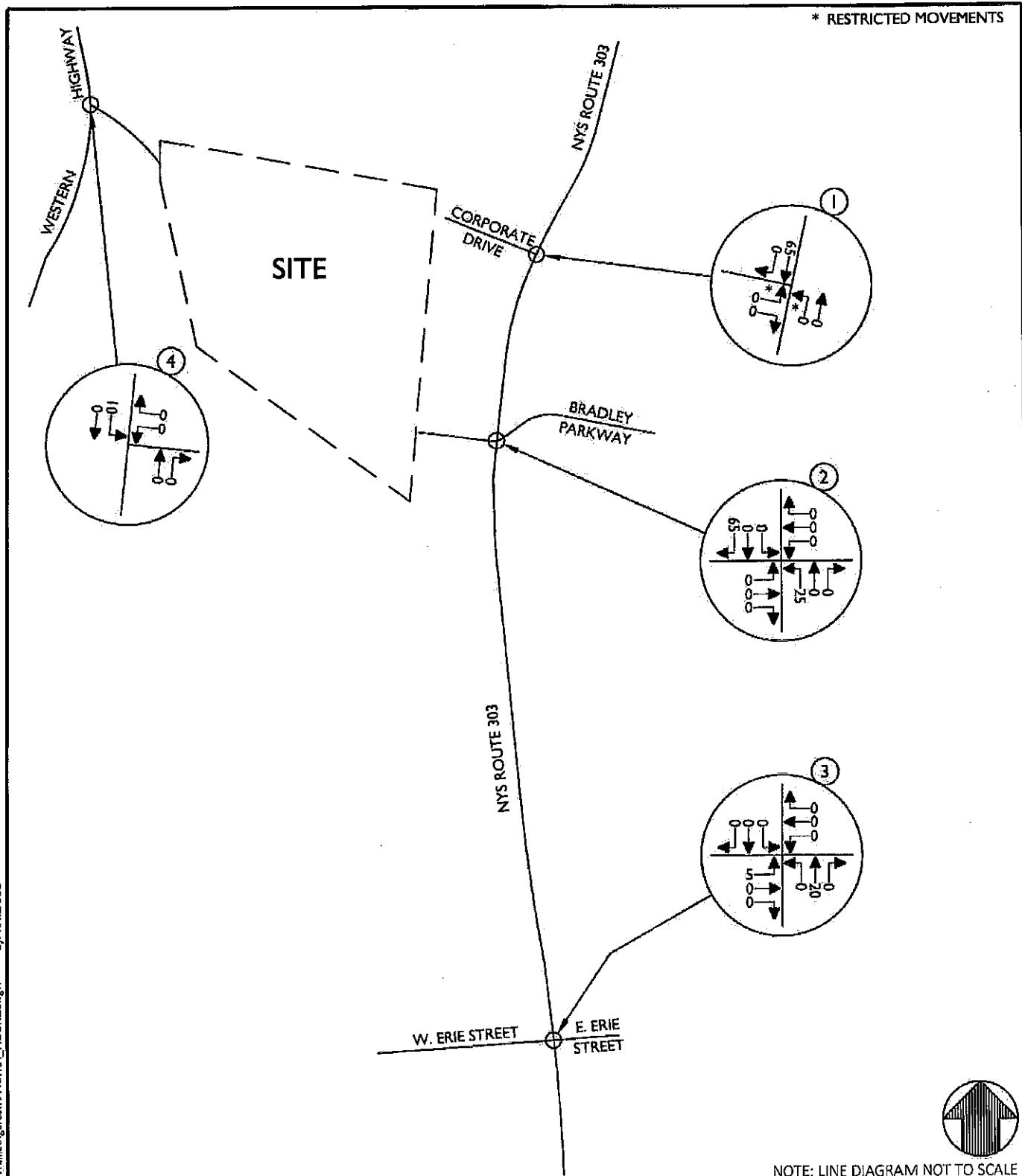
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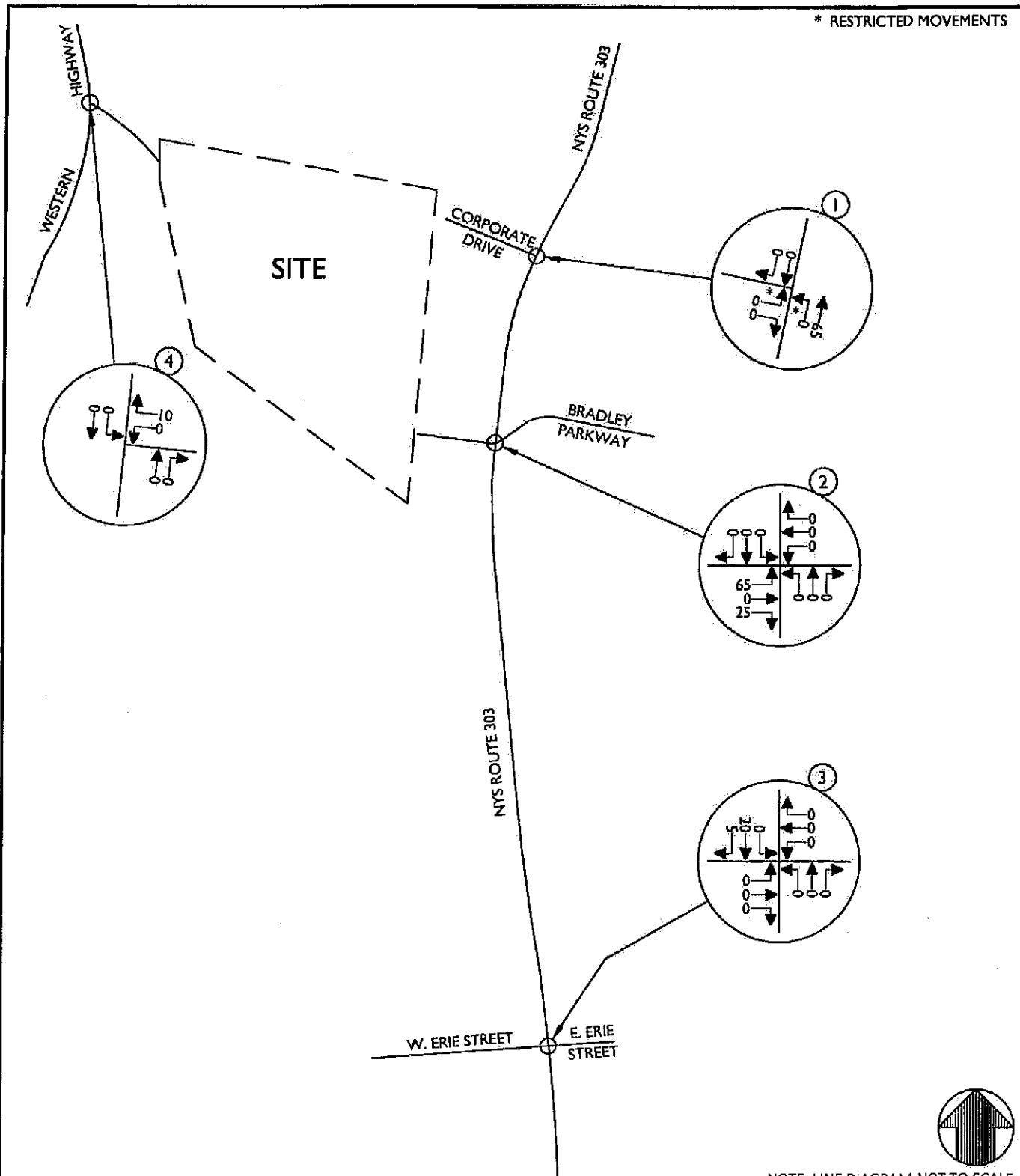
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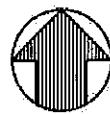
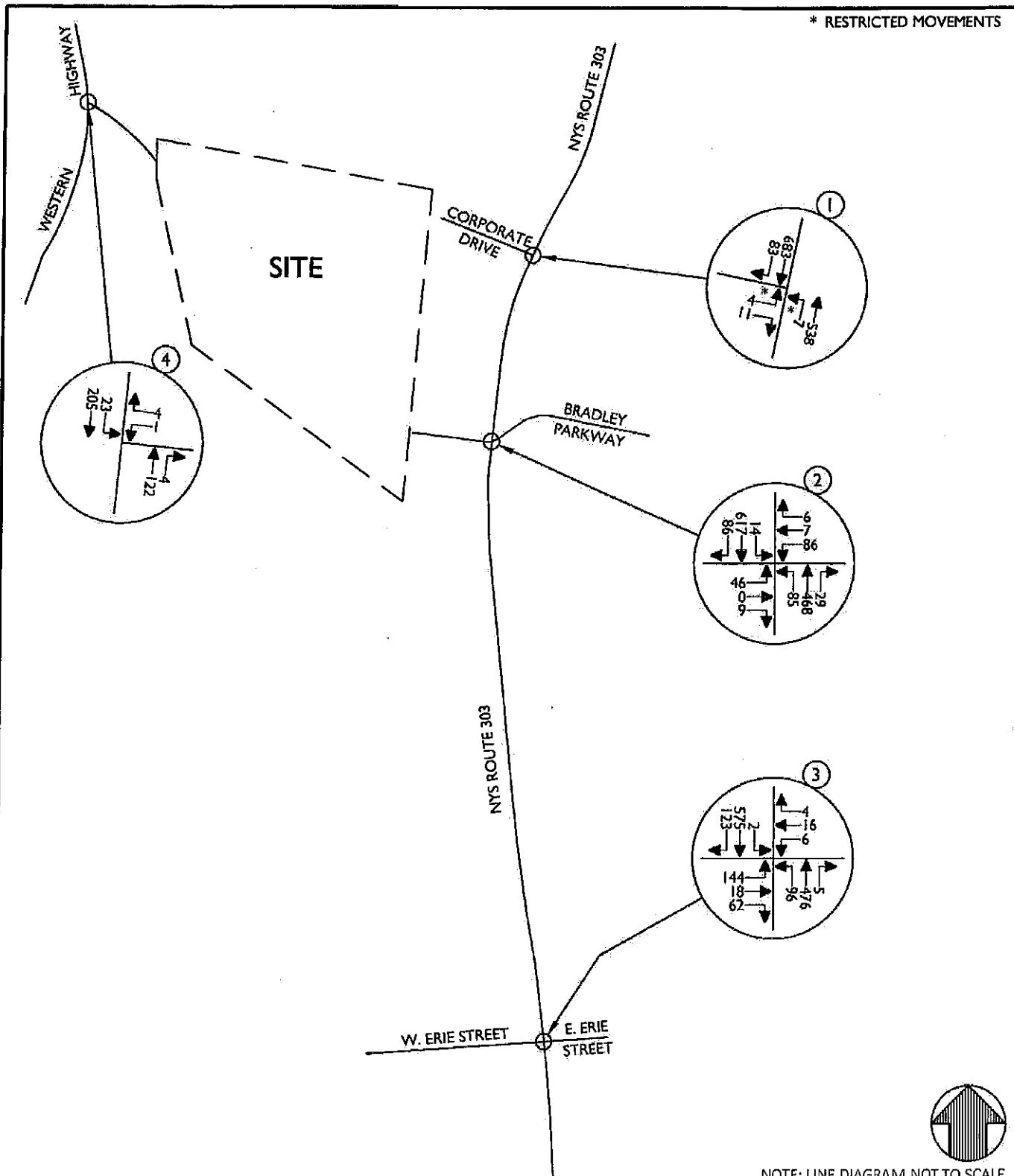
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FIGURE 4wg5  
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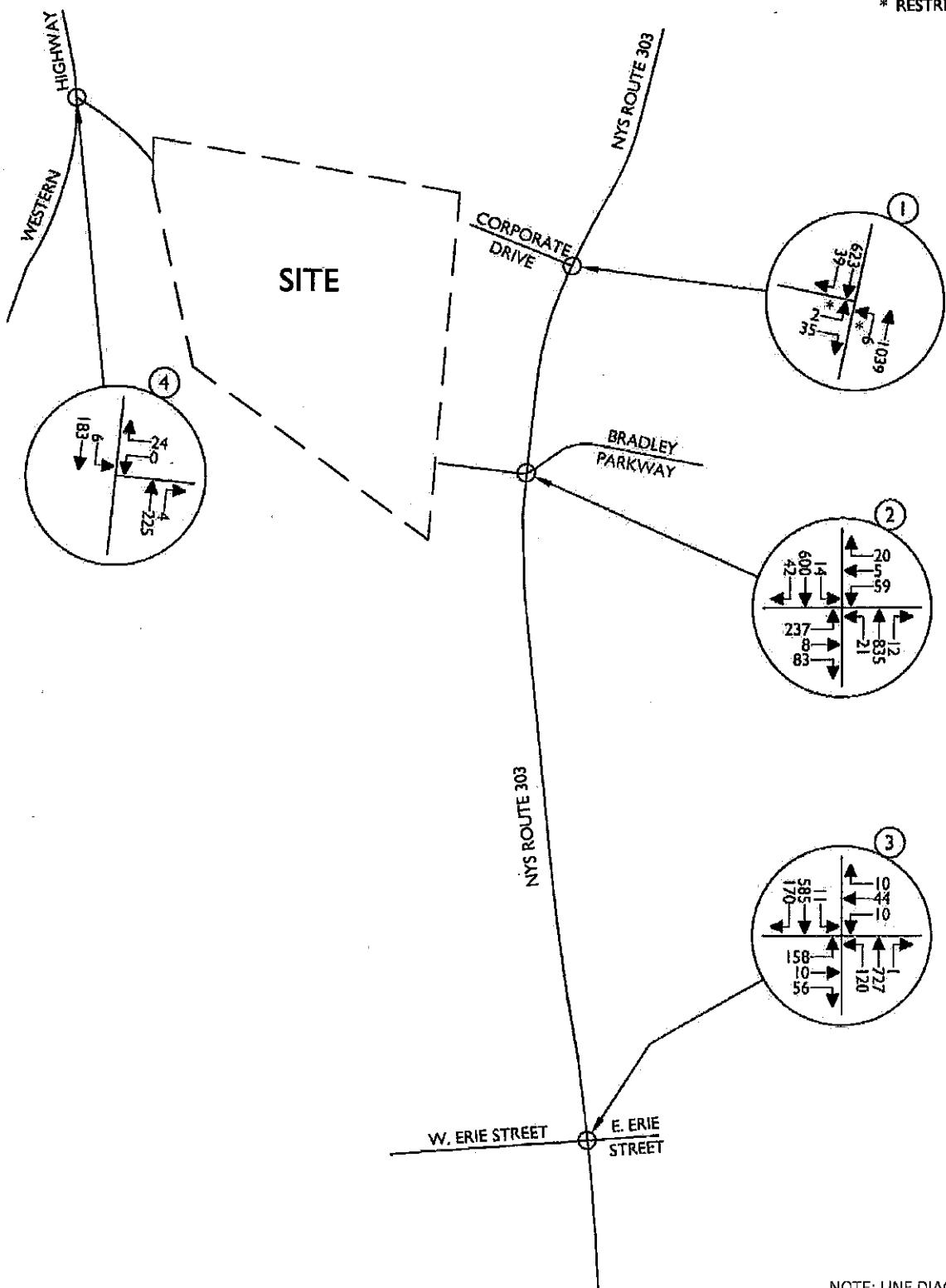
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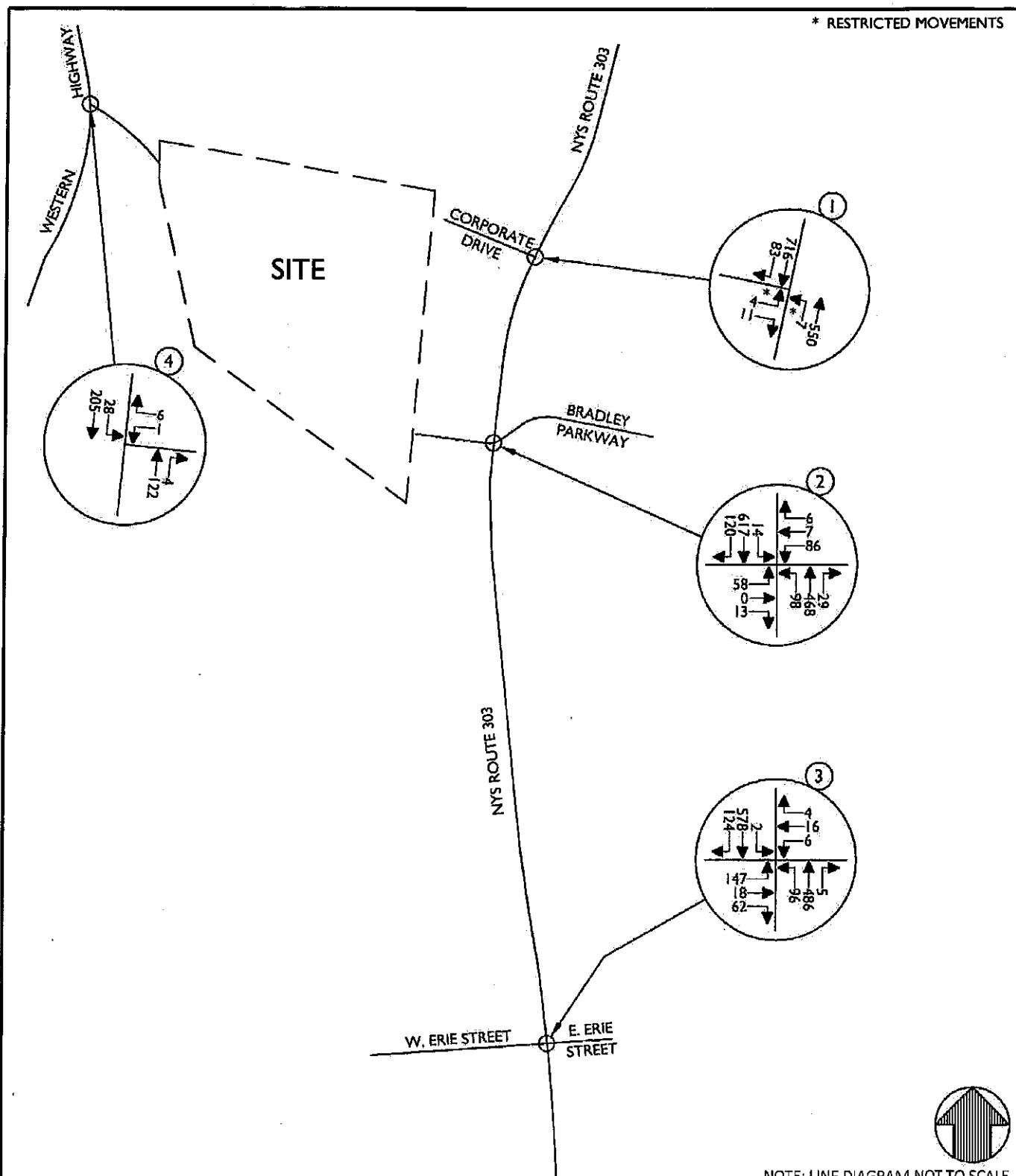
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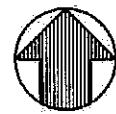
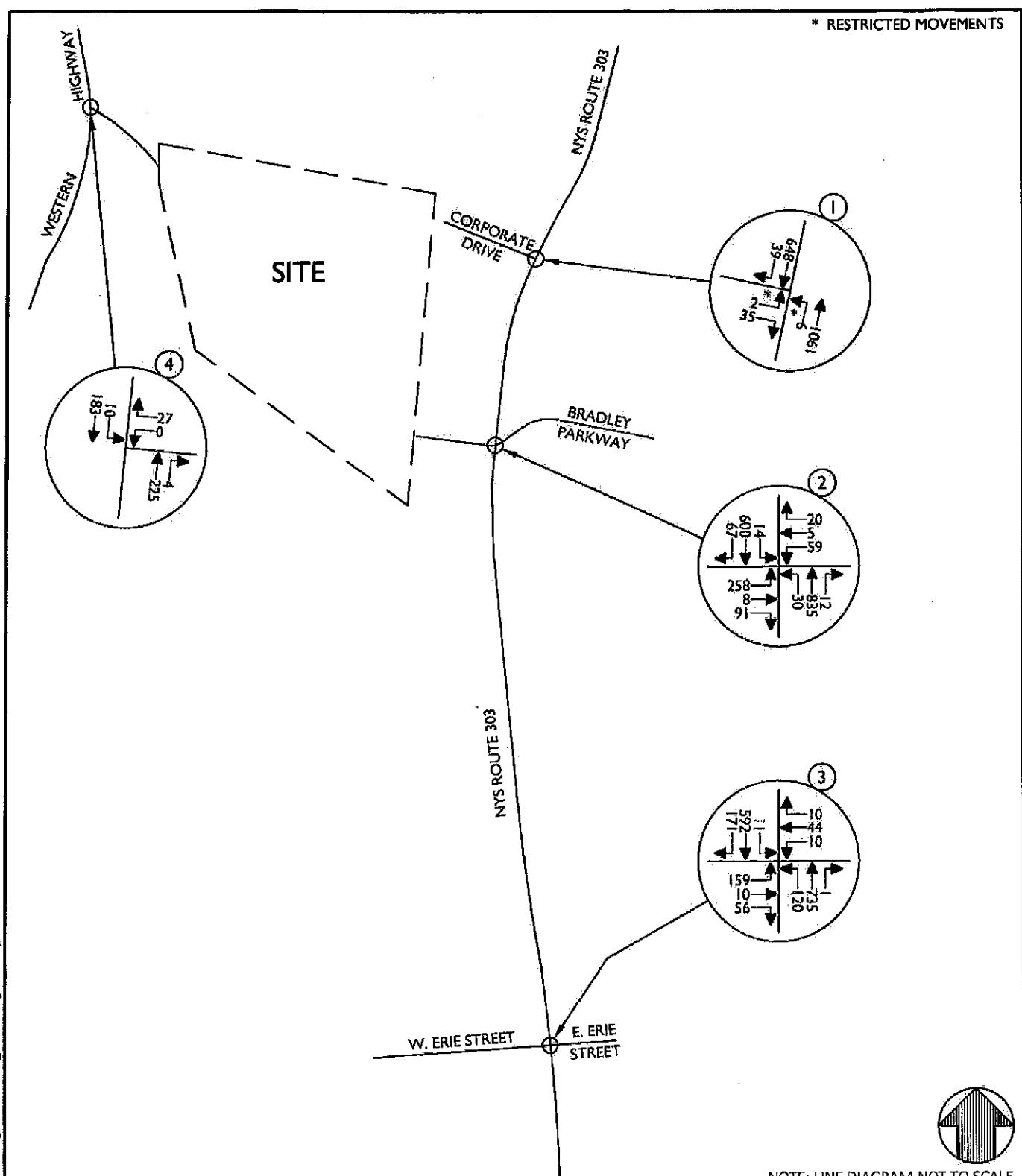
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## ***HUDSON CROSSING INDUSTRIAL PARK***

### **APPENDIX B**

#### **TABLES**

**TABLE NO. 1**  
**HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED  
SITE GENERATED TRAFFIC VOLUMES**

<b>BUILD A</b> <b>HUDSON CROSSING INDUSTRIAL PARK</b> <b>ORANGETOWN, NEW YORK</b>	<b>ENTRY</b>		<b>EXIT</b>	
	<b>HTGR<sup>1</sup></b>	<b>VOLUME</b>	<b>HTGR<sup>1</sup></b>	<b>VOLUME</b>
WAREHOUSE (173,000 S.F.)				
PEAK AM HOUR	0.13	23	0.04	7
PEAK PM HOUR	0.05	9	0.14	25

<b>BUILD B</b> <b>HUDSON CROSSING INDUSTRIAL PARK</b> <b>ORANGETOWN, NEW YORK</b>	<b>ENTRY</b>		<b>EXIT</b>	
	<b>HTGR<sup>2</sup></b>	<b>VOLUME</b>	<b>HTGR<sup>2</sup></b>	<b>VOLUME</b>
PARCEL HUB WAREHOUSE (173,000 S.F.)				
PEAK AM HOUR	N/A	74	N/A	25
PEAK PM HOUR	N/A	48	N/A	58

NOTES:

- 1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017. ITE LAND USE CODE - 150.
- 2) TRAFFIC VOLUME BASED ON INFORMATION PROVIDED BY AMAZON. TOTAL VOLUME (ENTRY & EXIT) ARE HIGHER THAN ITE LAND USE CODE - 156.

**TABLE NO. 2**  
**LEVEL OF SERVICE SUMMARY TABLE**  
**PEAK AM HOUR**

	Location	Approach	2019 EXISTING			2021 BUILD A			2021 BUILD B		
			V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY
1	NYS ROUTE 303 & CORPORATE DRIVE	UN SIGNALIZED									
	CORPORATE DRIVE	EB LR	0.05	C	16.2	0.05	C	16.8	0.05	C	17.5
	NYS ROUTE 303	NB LT	0.01	A	9.4	0.01	A	9.5	0.01	A	9.6
2	NYS ROUTE 303 & BRADLEY PARKWAY	SIGNALIZED									
	BRADLEY PARKWAY	EB LT	0.08	C	24.1	0.09	C	24.3	0.12	C	24.6
		EB R	0.02	C	23.3	0.02	C	23.4	0.03	C	23.5
	BRADLEY PARKWAY	WB LTR	0.18	C	24.0	-	C	24.1	-	C	24.4
	NYS ROUTE 303	NB LT	0.49	C	22.5	0.52	C	24.5	0.58	C	28.4
		TR	0.42	B	17.1	0.44	B	17.4	0.46	B	17.9
	NB OVERALL	-	B	19.5	-	C	20.5	-	C	22.2	
	NYS ROUTE 303	SB LT	0.42	B	17.1	0.44	B	17.4	0.47	B	17.8
		TR	0.44	B	17.5	0.46	B	17.9	0.48	B	18.4
	SB OVERALL	-	B	17.3	-	B	17.6	-	B	18.1	
	OVERALL	-	B	19.1	-	B	19.7	-	C	20.6	
3	NYS ROUTE 303 & W. ERIE STREET/E. ERIE STREET	SIGNALIZED									
	W. ERIE STREET	EB LTR	0.66	C	30.6	0.66	C	30.6	0.66	C	30.6
	E. ERIE STREET	WB LTR	0.07	C	25.8	0.07	C	25.7	0.07	C	25.6
	NYS ROUTE 303	NB L	0.2	A	7.1	0.21	A	7.2	0.21	A	7.3
		TR	0.2	A	5.5	0.22	A	5.6	0.22	A	5.7
	NB OVERALL	-	A	5.8	-	A	5.9	-	A	6.0	
	NYS ROUTE 303	SB L	0	A	8.7	0	A	8.8	0	A	8.9
		T	0.35	B	10.6	0.36	B	11.3	0.36	B	11.5
	SB OVERALL	-	A	9.5	0.17	B	10.1	0.17	B	10.2	
	OVERALL	-	B	10.9	-	B	11.1	-	B	11.2	
	WESTERN HIGHWAY & CORPORATE DRIVE	UN SIGNALIZED									
	CORPORATE DRIVE	WB LR	0.01	A	9.8	0.01	A	9.7	0.01	A	9.6
	WESTERN HIGHWAY	SB LT	0.02	A	7.7	0.02	A	7.7	0.03	A	7.7

**NOTES:**

- 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS. C [16.2] FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX 'C' FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

**TABLE NO. 3**  
**LEVEL OF SERVICE SUMMARY TABLE**  
**PEAK PM HOUR**

	NYS ROUTE 303 & CORPORATE DRIVE	UNSIGNALED			2019 EXISTING			2021 BUILD A			2021 BUILD B		
		V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY
1	CORPORATE DRIVE	EB	LR	0.08	B	13.2	0.09	B	13.4	0.09	B	13.8	
	NYS ROUTE 303	NB	LT	0.01	A	9.1	0.01	A	9.2	0.01	A	9.3	
2	NYS ROUTE 303 & BRADLEY PARKWAY	SIGNALIZED											
	BRADLEY PARKWAY	EB	LT	0.47	C	31.7	0.51	C	32.9	0.56	C	34.4	
		R	0.15	C	25.1	0.17	C	25.3	0.19	C	25.6		
	EB OVERALL	-	C	30.1	-	C	31.0	-	C	32.2			
	BRADLEY PARKWAY	WB	LTR	0.24	D	36.0	0.27	D	37.8	0.29	D	39.9	
	NYS ROUTE 303	NB	LT	0.5	B	18.3	0.51	B	18.5	0.52	B	18.6	
		TR	0.51	B	18.8	0.53	B	19.0	0.54	B	19.3		
	NB OVERALL	-	B	18.5	-	B	18.8	-	B	19.0			
	NYS ROUTE 303	SB	LT	0.38	B	16.2	0.39	B	16.4	0.4	B	16.7	
		TR	0.39	B	16.5	0.4	B	16.7	0.42	B	17.1		
	SB OVERALL	-	B	16.4	-	B	16.6	-	B	16.8			
	OVERALL	-	C	20.4	-	C	20.9	-	C	21.5			
3	NYS ROUTE 303 & W. ERIE STREET/E. ERIE STREET	SIGNALIZED											
	W. ERIE STREET	EB	LTR	0.66	C	30.4	0.67	C	30.4	0.67	C	30.4	
	E. ERIE STREET	WB	LTR	0.18	C	26.3	0.18	C	26.2	0.18	C	26.2	
	NYS ROUTE 303	NB	L	0.26	A	7.3	0.27	A	7.5	0.27	A	7.6	
		TR	0.32	A	6.3	0.33	A	6.5	0.33	A	6.6		
	NB OVERALL	-	A	6.5	-	A	6.7	-	A	6.7			
	NYS ROUTE 303	SB	L	0.03	A	9.1	0.03	A	9.3	0.03	A	9.3	
		T	0.35	B	11.4	0.36	B	11.7	0.37	B	11.7		
	SB OVERALL	-	B	10.6	0.23	B	10.9	0.23	B	11.0			
	OVERALL	-	B	11.2	-	B	11.5	-	B	11.5			
	WESTERN HIGHWAY & CORPORATE DRIVE	UNSIGNALED											
	CORPORATE DRIVE	WB	LR	0.04	B	10.0	0.04	B	10.1	0.05	B	10.1	
	WESTERN HIGHWAY	SB	LT	0.01	A	8.0	0.01	A	8.0	0.01	A	8.0	

**NOTES:**

- 1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.



Traffic Impact Study  
HUDSON CROSSING INDUSTRIAL PARK  
MC Project No.: 19003643A  
Appendix

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***HUDSON CROSSING INDUSTRIAL PARK***

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**APPENDIX C**

**LEVEL OF SERVICE STANDARDS**



## LEVEL OF SERVICE STANDARDS

### **LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS**

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

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

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

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

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



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

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

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

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6<sup>th</sup> Edition* published by the Transportation Research Board.

**Exhibit 19-8**

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

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



### **LEVEL OF SERVICE CRITERIA**

### **FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS**

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

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the *Highway Capacity Manual, 6<sup>th</sup> Edition* published by the Transportation Research Board.

**Exhibit 20-2**

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

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

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

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



**LEVEL OF SERVICE CRITERIA**

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

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the *Highway Capacity Manual, 6<sup>th</sup> Edition* published by the Transportation Research Board.

**Exhibit 21-8**

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

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



Traffic Impact Study  
HUDSON CROSSING INDUSTRIAL PARK  
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Appendix

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***HUDSON CROSSING INDUSTRIAL PARK***

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**APPENDIX D**

**CAPACITY ANALYSIS**

2019 Existing Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak AM Hour  
11/27/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	ASBR	BSBT	BSBR	BSBT	BSBR
Lane Configurations	Y			↑↑	↑↓	↓↑				
Traffic Volume (vph)	4	11	7	523	655	81				
Future Volume (vph)	4	11	7	523	655	81				
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900				
Lane Width (ft)	14	12	10	10	10	10				
Grade (%)	6%			-1%	4%					
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95				
Frt	0.899				0.984					
Flt Protected	0.988				0.999					
SaId. Flow (prot)	1712	0	0	3078	2978	0				
Flt Permitted	0.988				0.999					
SaId. Flow (perm)	1712	0	0	3078	2978	0				
Link Speed (mph)	30			30	30					
Link Distance (ft)	468			1408	450					
Travel Time (s)	10.6			32.0	10.2					
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				
Heavy Vehicles (%)	2%	2%	2%	10%	10%	2%				
Adj. Flow (vph)	4	12	7	556	697	86				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	16	0	0	563	783	0				
Enter Blocked Intersection	No	No	No	No	No	No				
Lane Alignment	Left	Right	Left	Left	Left	Right				
Median Width(ft)	14			0	0					
Link Offset(ft)	0			0	0					
Crosswalk Width(ft)	16			16	16					
Two way Left Turn Lane										
Headway Factor	0.96	1.04	1.09	1.09	1.12	1.12				
Turning Speed (mph)	15	9	15		9					
Sign Control	Stop			Free	Free					

Intersection Summary

Area Type: Other  
Control Type: Unsignalized

2019 Existing Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak AM Hour  
11/27/2019

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EER	NBL	NBT	SBT	SBR
Lane Configurations	Y		4↑	↑↑		
Traffic Vol, veh/h	4	11	7	523	655	81
Future Vol, veh/h	4	11	7	523	655	81
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, %	6	-	-	-1	4	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	10	10	2
Mvmt Flow	4	12	7	556	697	86

Major/Minor	M1hor2	Major1	Major2			
Conflicting Flow All	1032	392	783	0	-	0
Stage 1	740	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	8.04	7.54	4.14	-	-	-
Critical Hdwy Stg 1	7.04	-	-	-	-	-
Critical Hdwy Stg 2	7.04	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	162	569	831	-	-	-
Stage 1	338	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	60	569	831	-	-	-
Mov Cap-2 Maneuver	60	-	-	-	-	-
Stage 1	334	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	EB	NB	SB			
HCM Control Delay	16.2	0.2	0	-	-	-
HCM LOS	C	-	-	-	-	-

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	831	-	338	-	-	-
HCM Lane V/C Ratio	0.009	-	-0.047	-	-	-
HCM Control Delay (s)	9.4	0.1	16.2	-	-	-
HCM Lane LOS	A	A	C	-	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-	-

2019 Existing Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour

11/27/2019

Lane Group	EBL	EPT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SPT	SBR
Lane Configurations	↓	↑	↓	↑	←	→	↑	↓	↑	↓	↑	↓
Traffic Volume (vph)	41	0	7	84	7	6	78	459	28	14	605	70
Future Volume (vph)	41	0	7	84	7	6	78	459	28	14	605	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	11	12	12	10	12	12	10	12
Grade (%)	4%			4%			0%			0%		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.850		0.991			0.993			0.985		
Flt Protected		0.950		0.959			0.993			0.999		
Satd. Flow (prot)	0	1554	1391	0	1661	0	0	3048	0	0	3024	0
Flt Permitted		0.703		0.733			0.700			0.935		
Satd. Flow (perm)	0	1150	1391	0	1270	0	0	2148	0	0	2830	0
Right Turn on Red		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		29		3			7			17		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	563			289			1101			1408		
Travel Time (s)	12.8			6.6			25.0			32.0		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	2%	10%	8%	2%	2%	5%	10%	4%	7%	10%	7%
Adj. Flow (vph)	46	0	8	93	8	7	87	510	31	16	672	78
Shared Lane Traffic (%)	0	46	8	0	108	0	0	628	0	0	766	0
Lane Group Flow (vph)	0	46	8	0	108	0	0	628	0	0	766	0
Enter Blocked Intersection No	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right									
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.03	1.07	1.07	0.97	1.02	0.97	1.00	1.09	1.00	1.00	1.09	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases	4		8		8		2		2		6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0	46.0	46.0	46.0		66.0	66.0		66.0	66.0	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	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		
Total Lost Time (s)	6.0	6.0		6.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.11	0.02		0.24			0.54			0.50	
Control Delay		25.2	0.0		26.3			19.1			17.5	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		25.2	0.0		26.3			19.1			17.5	
Queue Length 50th (ft)		22	0		53			147			172	
Queue Length 95th (ft)		49	1		98			202			225	

Synchro 10 Report

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2019 Existing Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019



Lane Group	EBl	EBT	EBR	WBl	WBT	WBR	NBl	NBT	NBR	SBl	SBT	SBR
Internal Link Dist (ft)	483			209			1021			1328		
Turn Bay Length (ft)												
Base Capacity (vph)	410	515		455			1153			1523		
Starvation Cap Reductn	0	0		0			0			0		
Spillback Cap Reductn	0	0		0			0			0		
Storage Cap Reductn	0	0		0			0			0		
Reduced v/c Ratio	0.11	0.02		0.24			0.54			0.50		

Intersection Summary:

Area Type: Other

Cycle Length: 112

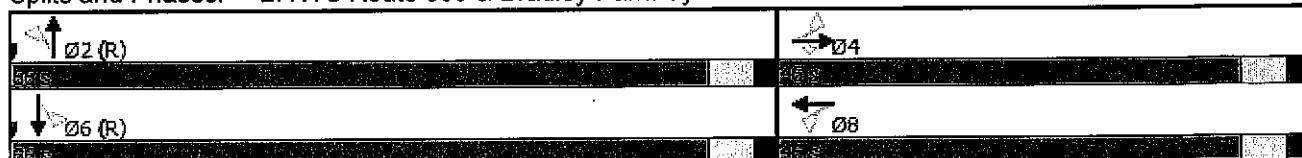
Actuated Cycle Length: 112

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Splits and Phases: 2: NYS Route 303 & Bradley Parkway



2019 Existing Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019

Movement	E BI	E BT	E BR	W BI	W BT	W BR	N BI	N BT	N BR	S BI	S BT	S BR
Lane Configurations	4	1	1	4	1	1	4	1	1	4	1	1
Traffic Volume (veh/h)	41	0	7	84	7	6	78	459	28	14	605	70
Future Volume (veh/h)	41	0	7	84	7	6	78	459	28	14	605	70
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/in	1776	1776	1658	2027	2027	2027	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	46	0	8	93	8	7	87	510	31	16	672	78
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	10	2	2	2	10	10	10	10	10	10
Cap, veh/h	553	0	502	515	45	35	185	1148	74	49	1549	177
Arrive On Green	0.36	0.00	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1370	0	1405	1274	125	97	267	2143	139	30	2891	331
Grp Volume(v), veh/h	46	0	8	108	0	0	278	0	350	405	0	361
Grp Sat Flow(s), veh/h/in	1370	0	1405	1496	0	0	979	0	1569	1717	0	1535
Q Serve(g_s), s	0.0	0.0	0.4	5.1	0.0	0.0	12.7	0.0	14.9	0.0	0.0	16.0
Cycle Q Clear(g_c), s	2.2	0.0	0.4	7.2	0.0	0.0	28.7	0.0	14.9	15.6	0.0	16.0
Prop In Lane	1.00		1.00	0.86		0.06	0.31		0.09	0.04		0.22
Lane Grp Cap(c), veh/h	553	0	502	594	0	0	567	0	841	953	0	822
V/C Ratio(X)	0.08	0.00	0.02	0.18	0.00	0.00	0.49	0.00	0.42	0.42	0.00	0.44
Avail Cap(c_a), veh/h	553	0	502	594	0	0	567	0	841	953	0	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	23.3	26.0	0.0	0.0	19.5	0.0	15.5	15.7	0.0	15.8
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.7	0.0	0.0	3.0	0.0	1.5	1.4	0.0	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	0.9	0.0	0.1	2.1	0.0	0.0	5.7	0.0	5.6	6.4	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.1	0.0	23.3	26.7	0.0	0.0	22.5	0.0	17.1	17.1	0.0	17.5
LnGrp LOS	C	A	C	C	A	A	C	A	B	B	A	B
Approach Vol, veh/h	54				108			628			766	
Approach Delay, s/veh	24.0				26.7			19.5			17.3	
Approach LOS	C				C			B			B	
Timer / Assigned Phs	2		4		6		8		10		12	
Phs Duration (G+Y+R <sub>c</sub> ), s	66.0		46.0		66.0		46.0					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	60.0		40.0		60.0		40.0					
Max Q Clear Time (g_c+l1), s	30.7		4.2		18.0		9.2					
Green Ext. Time(p_c), s	3.1		0.1		3.5		0.4					
Intersection Summary												
HCM 6th Ctrl Delay			19.1									
HCM 6th LOS			B									

2019 Existing Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Lane Group	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	140	18	61	6	16	4	94	462	5	2	562	120
Future Volume (vph)	140	18	61	6	16	4	94	462	5	2	562	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	10	12	13	10	12	10
Grade (%)			1%		0%			-3%			0%	
Storage Length (ft)	0	0	0	0	0	120	0	120	0	120	85	
Storage Lanes	0	0	0	0	0	1	0	1	0	1	1	
Taper Length (ft)	25		25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00				1.00		1.00					0.97
Flt	0.962				0.980			0.999				0.850
Flt Protected	0.969				0.989		0.950			0.950		
Satd. Flow (prot)	0	1719	0	0	1781	0	1569	3328	0	1532	3282	1383
Flt Permitted	0.790				0.929		0.345			0.468		
Satd. Flow (perm)	0	1400	0	0	1673	0	568	3328	0	754	3282	1345
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)	23				4			2				117
Link Speed (mph)	30				30			40				40
Link Distance (ft)	396				359			728				531
Travel Time (s)	9.0				8.2			12.4				9.1
Confl. Peds. (#/hr)	1					1	3					3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	7%	2%	2%	10%	9%	10%	10%	10%	10%	9%
Adj. Flow (vph)	151	19	66	6	17	4	101	497	5	2	604	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	27	0	101	502	0	2	604	129
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0				0			10			10	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	0.96	1.01	1.00	1.00	1.00	1.00	1.07	0.98	0.94	1.09	1.00
Turning Speed (mph)	15		9	15			9	15		9	15	9
Number of Detectors	1	2	1	1	2	2	2	2		2	2	2
Detector Template	Left		Left									
Leading Detector (ft)	20	83		20	83		83	83		83	83	83
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		43			43		43	43		43	43	43
Detector 2 Size(ft)		40			40		40	40		40	40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex

2019 Existing Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Lane Group	E BI	E BT	E BR	W BL	W BT	W BR	N BL	N BT	N BR	S BI	S BT	S BR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases	4			8			5	2		6		6
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	34.0	34.0		34.0	34.0		15.0	56.0		41.0	41.0	41.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%		16.7%	62.2%		45.6%	45.6%	45.6%
Maximum Green (s)	28.0	28.0		28.0	28.0		9.0	50.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							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
Recall Mode	None	None		None	None		None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0			7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0			11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		1	1		0			3	3	3
v/c Ratio	0.76			0.08			0.23	0.24		0.01	0.36	0.17
Control Delay	42.7			21.6			8.1	7.2		14.5	14.7	4.6
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Total Delay	42.7			21.6			8.1	7.2		14.5	14.7	4.6
Queue Length 50th (ft)	99			9			17	48		0	94	3
Queue Length 95th (ft)	174			28			46	95		5	173	38
Internal Link Dist (ft)	316			279			648				451	
Turn Bay Length (ft)							120			120		85
Base Capacity (vph)	507			591			477	2134		385	1676	744
Starvation Cap Reductn	0			0			0	0		0	0	0
Spillback Cap Reductn	0			0			0	0		0	0	0
Storage Cap Reductn	0			0			0	0		0	0	0
Reduced v/c Ratio	0.47			0.05			0.21	0.24		0.01	0.36	0.17

Intersection Summary

Area Type: Other

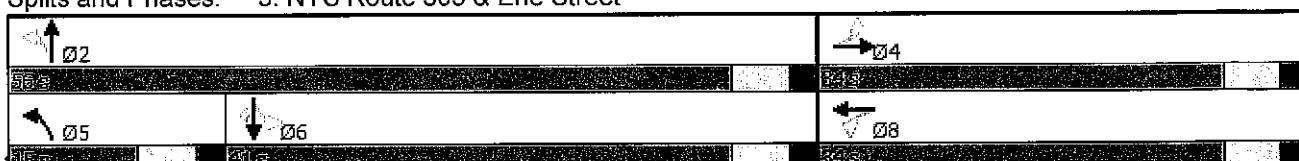
Cycle Length: 90

Actuated Cycle Length: 79.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: NYS Route 303 & Erie Street



Synchro 10 Report

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Job# 19003643A - R.H.

2019 Existing Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Movement	EBl	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	→	↔	←	↔	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	140	18	61	6	16	4	94	462	5	2	562	120
Future Volume (veh/h)	140	18	61	6	16	4	94	462	5	2	562	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1864	1939	1864	1870	1870	1870	1883	1868	1943	1752	1752	1767
Adj Flow Rate, veh/h	151	19	66	6	17	4	101	497	5	2	604	129
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	9	10	10	10	10	9
Cap, veh/h	253	28	79	99	234	48	502	2374	24	533	1739	780
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.06	0.66	0.66	0.52	0.52	0.52
Sat Flow, veh/h	962	153	433	226	1287	263	1793	3600	36	838	3328	1493
Grp Volume(v), veh/h	236	0	0	27	0	0	101	245	257	2	604	129
Grp Sat Flow(s), veh/h/ln	1547	0	0	1776	0	0	1793	1774	1861	838	1664	1493
Q Serve(g_s), s	10.2	0.0	0.0	0.0	0.0	0.0	1.8	4.1	4.1	0.1	8.0	3.4
Cycle Q Clear(g_c), s	11.1	0.0	0.0	0.9	0.0	0.0	1.8	4.1	4.1	0.1	8.0	3.4
Prop In Lane	0.64		0.28	0.22		0.15	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	360	0	0	382	0	0	502	1170	1228	533	1739	780
V/C Ratio(X)	0.66	0.00	0.00	0.07	0.00	0.00	0.20	0.21	0.21	0.00	0.35	0.17
Avail Cap(c_a), veh/h	645	0	0	694	0	0	611	1170	1228	533	1739	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	0.0	25.7	0.0	0.0	7.0	5.1	5.1	8.7	10.6	9.5
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.0	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.1	0.0	0.0	0.4	0.0	0.0	0.5	1.2	1.3	0.0	2.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	0.0	0.0	25.8	0.0	0.0	7.1	5.5	5.5	8.7	11.1	9.9
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	B	A
Approach Vol, veh/h	236			27			603			735		
Approach Delay, s/veh	30.6			25.8			5.8			10.9		
Approach LOS	C			C			A			B		
Timer - Assigned Phs	12	4	5	6	7	8						
Phs Duration (G+Y+Rc), s	56.0		19.8	10.4	45.6		19.8					
Change Period (Y+Rc), s	6.0		6.0	6.0	6.0		6.0					
Max Green Setting (Gmax), s	50.0		28.0	9.0	35.0		28.0					
Max Q Clear Time (g_c+l1), s	6.1		13.1	3.8	10.0		2.9					
Green Ext. Time (p_c), s	1.5		0.7	0.1	2.7		0.0					
Intersection Summary												
HCM 6th Ctrl Delay			12.1									
HCM 6th LOS			B									

2019 Existing Traffic Volumes  
4: Western Highway & Corporate Drive

Peak AM Hour  
11/27/2019

Lane Group	WBL	WBR	NBL	NBR	SBL	SBT	LT	RT	BT	NT	NTS	NTL	NTR	NTB	NTS	NTL	NTR	NTB
Lane Configurations	↖ ↗	↑ ↗	↗ ↘	↖ ↘	↑ ↘	↖ ↗												
Traffic Volume (vph)	1	3	120	4	20	201												
Future Volume (vph)	1	3	120	4	20	201												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900												
Lane Width (ft)	12	12	10	12	12	10												
Grade (%)	0%		0%		-1%													
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00												
Frt	0.892		0.996															
Flt Protected	0.990					0.995												
Satd. Flow (prot)	1525	0	1606	0	0	1612												
Flt Permitted	0.990					0.995												
Satd. Flow (perm)	1525	0	1606	0	0	1612												
Link Speed (mph)	30		30			30												
Link Distance (ft)	518		509			492												
Travel Time (s)	11.8		11.6			11.2												
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80												
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%												
Adj. Flow (vph)	1	4	150	5	25	251												
Shared Lane Traffic (%)																		
Lane Group Flow (vph)	5	0	155	0	0	276												
Enter Blocked Intersection No	No	No	No	No	No	No												
Lane Alignment	Left	Right	Left	Right	Left	Left												
Median Width(ft)	12		0			0												
Link Offset(ft)	0		0			0												
Crosswalk Width(ft)	16		16			16												
Two way Left Turn Lane																		
Headway Factor	1.00	1.00	1.09	1.00	0.99	1.09												
Turning Speed (mph)	15	9		9	15													
Sign Control	Stop		Free			Free												

Intersection Summary

Area Type: Other

Control Type: Unsignalized

2019 Existing Traffic Volumes  
4: Western Highway & Corporate Drive

Peak AM Hour  
11/27/2019

Intersection						
Int Delay, s/veh	WBL	WBR	NBT	NBR	SBL	SBT
<b>Lane Configurations</b>						
Traffic Vol, veh/h	1	3	120	4	20	201
Future Vol, veh/h	1	3	120	4	20	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	None	None	None	None	None	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage #	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-1
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	1	4	150	5	25	251

Major/Minor	Minor 1	Major 1	Major 2	Major 3	Major 4	Major 5
Conflicting Flow All	454	153	0	0	155	0
Stage 1	153	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.5	6.3	-	-	4.2	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	-	-	2.29	-
Pot Cap-1 Maneuver	549	872	-	-	1378	-
Stage 1	856	-	-	-	-	-
Stage 2	733	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	537	872	-	-	1378	-
Mov Cap-2 Maneuver	537	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	733	-	-	-	-	-

Approach	WB	NB	SB	EB
HCM Control Delay, s	9.8	0	0.7	-
HCM LOS	A	-	-	-

Minor Lane/Major Mvmt	NBT	NBR	BL1	SB1	SB2	SB3
Capacity (veh/h)	-	-	754	1378	-	-
HCM Lane V/C Ratio	-	-	0.007	0.018	-	-
HCM Control Delay (s)	-	-	9.8	7.7	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-	-

2019 Existing Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak PM Hour  
11/27/2019



Lane Group	FBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1	1	1	1↑	1↑	1
Traffic Volume (vph)	2	34	6	1003	605	38
Future Volume (vph)	2	34	6	1003	605	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	10	10	10	10
Grade (%)	6%			-1%	4%	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr1		0.872			0.991	
Flt Protected		0.997				
Satd. Flow (prot)	1676	0	0	3226	3040	0
Flt Permitted		0.997				
Satd. Flow (perm)	1676	0	0	3226	3040	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	468			1408	450	
Travel Time (s)	10.6			32.0	10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	5%	8%	2%
Adj. Flow (vph)	2	37	7	1102	665	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	0	0	1109	707	0
Enter Blocked Intersection No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	14			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.96	1.04	1.09	1.09	1.12	1.12
Turning Speed (mph)	15	9	15		9	
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

2019 Existing Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak PM Hour  
11/27/2019

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EER	NBL	NET	SBT	SBR
Lane Configurations			↑↑	↑↑		
Traffic Vol, veh/h	2	34	6	1003	605	38
Future Vol, veh/h	2	34	6	1003	605	38
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	-
Grade, %	6	-	-	-1	4	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	5	8	2
Mvmt Flow	2	37	7	1102	665	42

Major/Minor	Minor 2	Major 1	Major 2	Minor 3	Major 3	Minor 4
Conflicting Flow All	1251	354	707	0	-	0
Stage 1	686	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Critical Hdwy	8.04	7.54	4.14	-	-	-
Critical Hdwy Stg 1	7.04	-	-	-	-	-
Critical Hdwy Stg 2	7.04	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	108	606	887	-	-	-
Stage 1	367	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	606	606	887	-	-	-
Mov Cap-2 Maneuver	606	-	-	-	-	-
Stage 1	360	-	-	-	-	-
Stage 2	441	-	-	-	-	-

Approach	EB	NE	SB	SW
HCM Control Delay	18.2	0.2	0	-
HCM LOS	B	-	-	-

Minor Lane/Major Mvmt	NBL	NBT	EBln1	SBT	SBR
Capacity (veh/h)	887	-	480	-	-
HCM Lane V/C Ratio	0.007	-	0.082	-	-
HCM Control Delay (s)	9.1	0.1	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

2019 Existing Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Lane Group	E BL	E BT	E BR	W BL	W BT	W BR	N BL	N BT	N BR	S BL	S BT	S BR
Lane Configurations	→	→	→	←	←	←	↑	↑	↑	↓	↓	↓
Traffic Volume (vph)	216	8	75	58	5	20	18	819	12	14	588	35
Future Volume (vph)	216	8	75	58	5	20	18	819	12	14	588	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	11	12	12	10	12	12	10	12
Grade (%)	4%			-4%			0%			0%		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.850			0.967			0.998			0.992	
Flt Protected		0.954			0.966			0.999			0.999	
Satd. Flow (prot)	0	1652	1500	0	1716	0	0	3166	0	0	3146	0
Flt Permitted		0.690			0.674			0.930			0.925	
Satd. Flow (perm)	0	1195	1500	0	1197	0	0	2947	0	0	2913	0
Right Turn on Red		Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		82			16			2			8	
Link Speed (mph)	30				30			30			30	
Link Distance (ft)	563				289			1101			1408	
Travel Time (s)	12.8				6.6			25.0			32.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	10%	6%	8%	2%	6%	10%
Adj. Flow (vph)	237	9	82	64	5	22	20	900	13	15	646	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	82	0	91	0	0	933	0	0	699	0
Enter Blocked Intersection No	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right									
Median Width(ft)	0				0			0			0	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.07	1.07	0.97	1.02	0.97	1.00	1.09	1.00	1.00	1.09	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0	46.0	46.0	46.0		66.0	66.0		66.0	66.0	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	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		
Total Lost Time (s)	6.0	6.0		6.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.58	0.14		0.21			0.59			0.45	
Control Delay		35.7	6.0		22.0			19.6			16.8	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		35.7	6.0		22.0			19.6			16.8	
Queue Length 50th (ft)		142	0		37			229			152	
Queue Length 95th (ft)		230	32		77			293			200	

2019 Existing Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Lane Group	EBI	EBD	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	483			209			1021			1328		
Turn Bay Length (ft)												
Base Capacity (vph)	426	588		437			1579			1564		
Starvation Cap Reductn	0	0		0			0			0		
Spillback Cap Reductn	0	0		0			0			0		
Storage Cap Reductn	0	0		0			0			0		
Reduced v/c Ratio	0.58	0.14		0.21			0.59			0.45		

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 112

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Splits and Phases: 2: NYS Route 303 & Bradley Parkway



2019 Existing Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBR
Lane Configurations	↑	↑	↔	↔	↑	↑	↔	↔	↑	↑	↔	↔
Traffic Volume (veh/h)	216	8	75	58	5	20	18	819	12	14	588	35
Future Volume (veh/h)	216	8	75	58	5	20	18	819	12	14	588	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No		No		No		No
Adj Sat Flow, veh/h/ln	1776	1776	1776	2027	2027	2027	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	237	9	82	64	5	22	20	900	13	15	646	38
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	6	6	6
Cap, veh/h	508	17	538	268	28	77	52	1776	25	50	1687	98
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1245	47	1505	598	78	215	35	3316	47	31	3150	183
Grp Volume(v), veh/h	246	0	82	91	0	0	483	0	450	364	0	335
Grp Sat Flow(s), veh/h/ln	1292	0	1505	891	0	0	1759	0	1640	1748	0	1615
Q Serve(g_s), s	0.0	0.0	4.1	4.6	0.0	0.0	0.0	0.0	19.7	0.0	0.0	13.6
Cycle Q Clear(g_c), s	17.4	0.0	4.1	22.0	0.0	0.0	18.9	0.0	19.7	13.1	0.0	13.6
Prop In Lane	0.96		1.00	0.70		0.24	0.04		0.03	0.04		0.11
Lane Grp Cap(c), veh/h	524	0	538	373	0	0	976	0	878	970	0	865
V/C Ratio(X)	0.47	0.00	0.15	0.24	0.00	0.00	0.50	0.00	0.51	0.38	0.00	0.39
Avail Cap(c_a), veh/h	524	0	538	373	0	0	976	0	878	970	0	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	24.5	34.4	0.0	0.0	16.5	0.0	16.6	15.1	0.0	15.2
Incr Delay (d2), s/veh	3.0	0.0	0.6	1.6	0.0	0.0	1.8	0.0	2.1	1.1	0.0	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.7	0.0	1.6	2.3	0.0	0.0	8.1	0.0	7.7	5.6	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.7	0.0	25.1	36.0	0.0	0.0	18.3	0.0	18.8	16.2	0.0	16.5
LnGrp LOS	C	A	C	D	A	A	B	A	B	B	A	B
Approach Vol, veh/h	328				91			933			699	
Approach Delay, s/veh	30.1				36.0			18.5			16.4	
Approach LOS	C			D			B			B		
Timer - Assigned Phs	12		12		6		8					
Phs Duration (G+Y+Rc), s	66.0		46.0		66.0		46.0					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	60.0		40.0		60.0		40.0					
Max Q Clear Time (g_c+I1), s	21.7		19.4		15.6		24.0					
Green Ext Time (p_c), s	4.5		1.0		3.2		0.2					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	20.4											
HCM 6th LOS	C											

2019 Existing Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Lane Group	EBL	EBL	EBC	WBL	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	10	55	10	43	10	118	711	1	11	569	165
Future Volume (vph)	154	10	55	10	43	10	118	711	1	11	569	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	10	12	13	10	12	10
Grade (%)		1%			0%			-3%			0%	
Storage Length (ft)	0	0	0	0	0	120		0	120			85
Storage Lanes	0	0	0	0	0	1		0	1			1
Taper Length (ft)	25		25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00			1.00								
Frt		0.966			0.978							0.850
Frt Protected		0.966			0.992		0.950				0.950	
Satd. Flow (prot)	0	1753	0	0	1803	0	1676	3457	0	1652	3438	1478
Frt Permitted		0.747			0.941		0.324				0.356	
Satd. Flow (perm)	0	1354	0	0	1711	0	572	3457	0	619	3438	1478
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			11							158
Link Speed (mph)	30			30			40			40		
Link Distance (ft)	396			359			728			531		
Travel Time (s)	9.0			8.2			12.4			9.1		
Confl. Peds. (#/hr)	1				1							
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	10%	2%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	169	11	60	11	47	11	130	781	1	12	625	181
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	240	0	0	69	0	130	782	0	12	625	181
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0			0			10			10		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.01	0.96	1.01	1.00	1.00	1.00	1.07	0.98	0.94	1.09	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	2
Detector Template	Left		Left									
Leading Detector (ft)	20	83		20	83		83	83		83	83	83
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43		43	43	43
Detector 2 Size(ft)		40			40		40	40		40	40	40
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex

2019 Existing Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019



Lane Group	EBl	EBt	EBr	WBl	WBr	NBl	NBr	SBl	SBt	SBr
Detector 2 Channel										
Detector 2 Extend (s)	0.0			0.0		0.0	0.0	0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	4			8		5	2	6		6
Permitted Phases	4			8		2		6		6
Detector Phase	4	4		8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	11.0	24.0	24.0	24.0	24.0
Total Split (s)	34.0	34.0		34.0	34.0	15.0	56.0	41.0	41.0	41.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%	16.7%	62.2%	45.6%	45.6%	45.6%
Maximum Green (s)	28.0	28.0		28.0	28.0	9.0	50.0	35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0			6.0		6.0	6.0	6.0	6.0	6.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						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
Recall Mode	None	None		None	None	None	Max	Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		1	1	0		3	3	3
v/c Ratio	0.77			0.18		0.28	0.36	0.04	0.39	0.23
Control Delay	43.6			22.1		9.0	8.5	15.7	16.2	4.8
Queue Delay	0.0			0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	43.6			22.1		9.0	8.5	15.7	16.2	4.8
Queue Length 50th (ft)	103			23		23	86	3	101	6
Queue Length 95th (ft)	181			54		60	163	16	182	49
Internal Link Dist (ft)	316			279		648		451		
Turn Bay Length (ft)						120		120		85
Base Capacity (vph)	489			610		485	2177	288	1604	774
Starvation Cap Reductn	0			0		0	0	0	0	0
Spillback Cap Reductn	0			0		0	0	0	0	0
Storage Cap Reductn	0			0		0	0	0	0	0
Reduced v/c Ratio	0.49			0.11		0.27	0.36	0.04	0.39	0.23

Intersection Summary

Area Type: Other

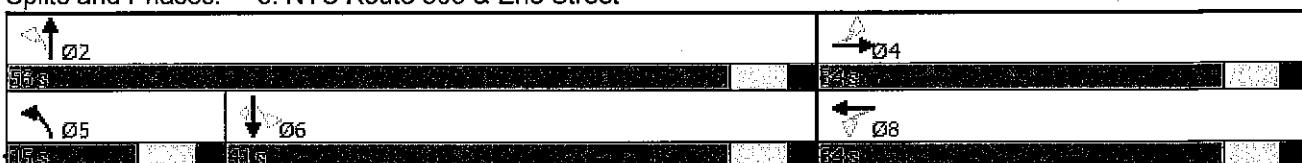
Cycle Length: 90

Actuated Cycle Length: 79.8

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: NYS Route 303 & Erie Street



Synchro 10 Report

2019 Existing Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Movement	E BL	E BT	E BR	W BL	W BT	W BR	N BL	N BT	N BR	S BL	S BT	S BR
Lane Configurations	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	154	10	55	10	43	10	118	711	1	11	569	165
Future Volume (veh/h)	154	10	55	10	43	10	118	711	1	11	569	165
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/in	1864	1939	1864	1870	1870	1870	1988	1928	2005	1870	1826	1870
Adj Flow Rate, veh/h	169	11	60	11	47	11	130	781	1	12	625	181
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	6	6	2	5	2
Cap, veh/h	280	14	71	80	256	53	506	2467	3	452	1793	819
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.06	0.66	0.66	0.52	0.52	0.52
Sat Flow, veh/h	1076	77	384	135	1384	288	1893	3754	5	691	3469	1585
Grp Volume(v), veh/h	240	0	0	69	0	0	130	381	401	12	625	181
Grp Sat Flow(s), veh/h/in	1537	0	0	1807	0	0	1893	1832	1927	691	1735	1585
Q Serve(g_s), s	8.9	0.0	0.0	0.0	0.0	0.0	2.2	6.8	6.8	0.6	8.1	4.7
Cycle Q Clear(g_c), s	11.3	0.0	0.0	2.4	0.0	0.0	2.2	6.8	6.8	0.6	8.1	4.7
Prop In Lane	0.70		0.25	0.16		0.16	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	365	0	0	389	0	0	506	1204	1267	452	1793	819
V/C Ratio(X)	0.66	0.00	0.00	0.18	0.00	0.00	0.26	0.32	0.32	0.03	0.35	0.22
Avail Cap(c_a), veh/h	634	0	0	702	0	0	614	1204	1267	452	1793	819
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	0.0	26.3	0.0	0.0	7.2	5.6	5.6	9.0	10.8	10.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.0	0.1	0.7	0.7	0.1	0.5	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	4.1	0.0	0.0	1.0	0.0	0.0	0.7	2.1	2.2	0.1	2.8	1.5
Unsig. Movement Delay, s/veh												
LnGp Delay(d), s/veh	30.4	0.0	0.0	26.3	0.0	0.0	7.3	6.3	6.3	9.1	11.4	10.6
LnGp LOS	C	A	A	C	A	A	A	A	A	B	B	
Timer - Assigned Phs	2		4		5		6		8			
Phs Duration (G+Y+R <sub>c</sub> ), s	56.0		20.1		10.7		45.3		20.1			
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0		6.0			
Max Green Setting (Gmax), s	50.0		28.0		9.0		35.0		28.0			
Max Q Clear Time (g_c+1), s	8.8		13.3		4.2		10.1		4.4			
Green Ext Time (p_c), s	2.5		0.7		0.1		3.1		0.2			
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									

2019 Existing Traffic Volumes  
4: Western Highway & Corporate Drive

Peak PM Hour  
11/27/2019



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	WTR	WTR	NTR	NTR	SBR	SBR
Lane Configurations	W	B	B	B	B	B	W	B	B	B	W	B
Traffic Volume (vph)	0	21	221	4	5	179						
Future Volume (vph)	0	21	221	4	5	179						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Width (ft)	12	12	10	12	12	10						
Grade (%)	0%		0%			-1%						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt	0.865		0.998									
Flt Protected						0.999						
Satd. Flow (prot)	1611	0	1684	0	0	1742						
Flt Permitted						0.999						
Satd. Flow (perm)	1611	0	1684	0	0	1742						
Link Speed (mph)	30		30			30						
Link Distance (ft)	518		509			492						
Travel Time (s)	11.8		11.6			11.2						
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75						
Heavy Vehicles (%)	2%	2%	5%	10%	10%	2%						
Adj. Flow (vph)	0	28	295	5	7	239						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	0	300	0	0	246						
Enter Blocked Intersection No	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Right	Left	Left						
Median Width(ft)	12		0			0						
Link Offset(ft)	0		0			0						
Crosswalk Width(ft)	16		16			16						
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.09	1.00	0.99	1.09						
Turning Speed (mph)	15	9	9	9	15							
Sign Control	Stop		Free			Free						

Intersection Summary

Area Type: Other  
Control Type: Unsignalized

2019 Existing Traffic Volumes  
4: Western Highway & Corporate Drive

Peak PM Hour  
11/27/2019

**Intersection**

Int Delay, s/veh 0.6

**Movement**

WBL WBR NBT NBR SBL SBT

Lane Configurations	↑	↑	↓	↓	↑	↑
Traffic Vol, veh/h	0	21	221	4	5	179
Future Vol, veh/h	0	21	221	4	5	179
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
Grade, %	0	-	0	-	-	-1
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	5	10	10	2
Mvmt Flow	0	28	295	5	7	239

**Major/Minor**

Minor1 Major1 Major2

Conflicting Flow All	551	298	0	0	300	0
Stage 1	298	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.29	-
Pot Cap-1 Maneuver	495	741	-	-	1217	-
Stage 1	753	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	492	741	-	-	1217	-
Mov Cap-2 Maneuver	492	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	789	-	-	-	-	-

**Approach**

WB NB SB

HCM Control Delay, s/10	0	0.2	-
HCM LOS	B	-	-

**Minor Lane/Major Mvmt**

NBT NBR BLn1 SBL SBT

Capacity (veh/h)	-	-	741	1217	-
HCM Lane V/C Ratio	-	-	0.038	0.005	-
HCM Control Delay (s)	-	-	10	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

2021 Build "A" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak AM Hour  
11/27/2019



Lane/Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		↑↑	↑↑		
Traffic Volume (vph)	4	11	7	538	683	83
Future Volume (vph)	4	11	7	538	683	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	10	10	10	10
Grade (%)	6%		-1%	4%		
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr1	0.899			0.984		
Flt Protected	0.988			0.999		
Satd. Flow (prot)	1712	0	0	3078	2977	0
Flt Permitted	0.988			0.999		
Satd. Flow (perm)	1712	0	0	3078	2977	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	468			1408	450	
Travel Time (s)	10.6			32.0	10.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	10%	10%	2%
Adj. Flow (vph)	4	12	7	572	727	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	579	815	0
Enter Blocked Intersection No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	14			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.96	1.04	1.09	1.09	1.12	1.12
Turning Speed (mph)	15	9	15		9	
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other  
Control Type: Unsignalized

2021 Build "A" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak AM Hour  
11/27/2019

**Intersection**

Int Delay, s/veh 0.3

Movement	EBL	EBC	NBL	NBC	SBT	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	4	11	7	538	683	83
Future Vol, veh/h	4	11	7	538	683	83
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
R <sup>1</sup> Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage #	-	-	-	0	0	-
Grade, %	6	-	-	-1	4	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	10	10	2
Mvmt Flow	4	12	7	572	727	88

Major/Minor	Minor 2	Major 1	Major 2			
Conflicting Flow All	1071	408	815	0	-	0
Stage 1	771	-	-	-	-	-
Stage 2	300	-	-	-	-	-
Critical Hdwy	8.04	7.54	4.14	-	-	-
Critical Hdwy Stg 1	7.04	-	-	-	-	-
Critical Hdwy Stg 2	7.04	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	51	554	808	-	-	-
Stage 1	322	-	-	-	-	-
Stage 2	656	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	49	554	808	-	-	-
Mov Cap-2 Maneuver	49	-	-	-	-	-
Stage 1	318	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	EB	NB	SB			
HCM Control Delay	16.8	0.2	0	-	-	-
HCM LOS	C	-	-	-	-	-

Minor Lane/Major Mvmt	NBL	NBC	EBLn1	SBT	SBR
Capacity (veh/h)	808	-	321	-	-
HCM Lane V/C Ratio	0.009	-	0.05	-	-
HCM Control Delay (s)	9.5	0.1	16.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

2021 Build "A" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019

Lane Group	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBR
Lane Configurations	↔	→	↔	←	↔	↔	↑	↑	↑	↓	↓	↔
Traffic Volume (vph)	46	0	9	86	7	6	85	468	29	14	617	86
Future Volume (vph)	46	0	9	86	7	6	85	468	29	14	617	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	11	12	12	10	12	12	10	12
Grade (%)	4%			-4%			0%			0%		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.850			0.991			0.993			0.982	
Flt Protected		0.950			0.959			0.993			0.999	
Satd. Flow (prot)	0	1554	1391	0	1661	0	0	3049	0	0	3016	0
Flt Permitted		0.701			0.727			0.673			0.936	
Satd. Flow (perm)	0	1147	1391	0	1259	0	0	2066	0	0	2826	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29		3			7			21		
Link Speed (mph)	30			30			30			30		
Link Distance (ft)	563			289			1101			1408		
Travel Time (s)	12.8			6.6			25.0			32.0		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	10%	2%	10%	8%	2%	2%	5%	10%	4%	7%	10%	7%
Adj. Flow (vph)	51	0	10	96	8	7	94	520	32	16	686	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	51	10	0	111	0	0	646	0	0	798	0
Enter Blocked Intersection No	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right									
Median Width(ft)	0			0			0			0		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.03	1.07	1.07	0.97	1.02	0.97	1.00	1.09	1.00	1.00	1.09	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases	4			8			2			6		
Permitted Phases	4		4	8			2			6		
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0	46.0	46.0	46.0		66.0	66.0		66.0	66.0	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%	41.1%	58.9%	58.9%	58.9%	58.9%	58.9%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	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		
Total Lost Time (s)	6.0	6.0		6.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio	0.12	0.02		0.25			0.58			0.52		
Control Delay	25.4	1.6		26.5			20.0			17.8		
Queue Delay	0.0	0.0		0.0			0.0			0.0		
Total Delay	25.4	1.6		26.5			20.0			17.8		
Queue Length 50th (ft)	25	0		54			156			181		
Queue Length 95th (ft)	54	3		100			215			236		

2021 Build "A" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019



Lane Group	EBI	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Internal Link Dist (ft)	483			209			1021			1328		
Turn Bay Length (ft)												
Base Capacity (vph)	409	515		451			1110			1523		
Starvation Cap Reductn	0	0		0			0			0		
Spillback Cap Reductn	0	0		0			0			0		
Storage Cap Reductn	0	0		0			0			0		
Reduced v/c Ratio	0.12	0.02		0.25			0.58			0.52		

Intersection Summary

Area Type: Other

Cycle Length: 112

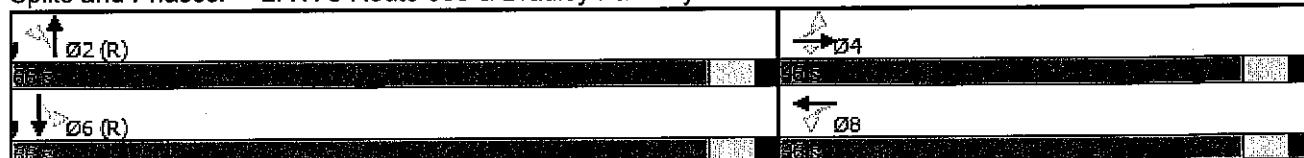
Actuated Cycle Length: 112

Offset: 0 (0%), Referenced to phase 2:NBL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Splits and Phases: 2: NYS Route 303 & Bradley Parkway



2021 Build "A" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC	
Lane Configurations	4	1	1	4	6	85	468	29	14	617	86	86	
Traffic Volume (veh/h)	46	0	9	86	7	6	85	468	29	14	617	86	
Future Volume (veh/h)	46	0	9	86	7	6	85	468	29	14	617	86	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No		No		No		No		No		
Adj Sat Flow, veh/h/ln	1776	1776	1658	2027	2027	2027	1752	1752	1752	1752	1752	1752	
Adj Flow Rate, veh/h	51	0	10	96	8	7	94	520	32	16	686	96	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	2	2	10	2	2	2	10	10	10	10	10	10	
Cap, veh/h	554	0	502	513	43	33	187	1113	73	49	1513	209	
Arrive On Green	0.36	0.00	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54	0.54	
Sat Flow, veh/h	1372	0	1405	1269	120	93	269	2077	137	28	2824	390	
Grp Volume(v), veh/h	51	0	10	111	0	0	279	0	367	423	0	375	
Grp Sat Flow(s), veh/h/ln	1372	0	1405	1482	0	0	913	0	1569	1718	0	1524	
Q Serve(g_s), s	0.0	0.0	0.5	5.3	0.0	0.0	14.8	0.0	15.8	0.0	0.0	17.0	
Cycle Q Clear(g_c), s	2.4	0.0	0.5	7.7	0.0	0.0	31.8	0.0	15.8	16.6	0.0	17.0	
Prop In Lane	1.00		1.00	0.86		0.06	0.34		0.09	0.04		0.26	
Lane Grp Cap(c), veh/h	554	0	502	589	0	0	532	0	841	954	0	816	
V/C Ratio(X)	0.09	0.00	0.02	0.19	0.00	0.00	0.52	0.00	0.44	0.44	0.00	0.46	
Avail Cap(c_a), veh/h	554	0	502	589	0	0	532	0	841	954	0	816	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh	23.9	0.0	23.3	26.2	0.0	0.0	20.9	0.0	15.8	15.9	0.0	16.0	
Incr Delay (d2), s/veh	0.3	0.0	0.1	0.7	0.0	0.0	3.7	0.0	1.6	1.5	0.0	1.9	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/ln	0.0	0.2	2.2	0.0	0.0	6.0	0.0	5.9	6.8	0.0	6.2		
Unsig. Movement Delay, s/veh	LnGrp Delay(d), s/veh	24.3	0.0	23.4	26.9	0.0	0.0	24.5	0.0	17.4	17.4	0.0	17.9
LnGrp LOS	C	A	C	C	A	A	C	A	B	B	A	B	
Approach Vol, veh/h	61			111			646			798			
Approach Delay, s/veh	24.1			26.9			20.5			17.6			
Approach LOS	C			C			C			B			
Timer - Assigned Phs	12		4	6		8	18		12		18		
Phs Duration (G+Y+Rc), s	66.0		46.0	66.0		46.0							
Change Period (Y+Rc), s	6.0		6.0	6.0		6.0							
Max Green Setting (Gmax), s	60.0		40.0	60.0		40.0							
Max Q Clear Time (g_c+I1), s	33.8		4.4	19.0		9.7							
Green Ext Time (p_c), s	3.3		0.2	3.7		0.4							
Intersection Summary													
HCM 6th Ctrl Delay			19.7										
HCM 6th LOS			B										

2021 Build "A" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	→	↔	←	↔	↔	↑	↑↓	↑	↑	↓	↔
Traffic Volume (vph)	144	18	62	6	16	4	96	476	5	2	572	123
Future Volume (vph)	144	18	62	6	16	4	96	476	5	2	572	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	10	12	13	10	12	10
Grade (%)	1%			0%			-3%			0%		
Storage Length (ft)	0	0	0	0	0	120	0	0	120	0	85	
Storage Lanes	0	0	0	0	0	1	0	0	1	0	1	1
Taper Length (ft)	25		25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00			1.00		1.00						0.97
Frt		0.962			0.980			0.999				0.850
Flt Protected		0.969			0.989		0.950			0.950		
Satd. Flow (prot)	0	1719	0	0	1781	0	1569	3328	0	1532	3282	1383
Flt Permitted		0.789			0.928		0.339			0.461		
Satd. Flow (perm)	0	1398	0	0	1671	0	559	3328	0	743	3282	1345
Right Turn on Red		Yes			Yes		Yes		Yes		Yes	
Satd. Flow (RTOR)	22		4			2						117
Link Speed (mph)	30		30			40						40
Link Distance (ft)	396		359			728						531
Travel Time (s)	9.0		8.2			12.4						9.1
Conf. Peds. (#/hr)	1				1	3						3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	7%	2%	2%	10%	9%	10%	10%	10%	10%	9%
Adj. Flow (vph)	155	19	67	6	17	4	103	512	5	2	615	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	0	0	27	0	103	517	0	2	615	132
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0		0			10					10	
Link Offset(ft)	0		0			0					0	
Crosswalk Width(ft)	16		16			16					16	
Two way Left Turn Lane												
Headway Factor	1.01	0.96	1.01	1.00	1.00	1.00	1.07	0.98	0.94	1.09	1.00	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	2
Detector Template	Left		Left									
Leading Detector (ft)	20	83		20	83		83	83		83	83	83
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)	43		43		43		43	43		43	43	43
Detector 2 Size(ft)	40		40		40		40	40		40	40	40
Detector 2 Type	Cl+Ex		Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex

Synchro 10 Report

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Job# 19003643A - R.H.

2021 Build "A" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Lane Group	E BL	E BT	E BR	W BL	W BT	N BL	N BT	N BR	S BL	S BT	S ER
Detector 2 Channel											
Detector 2 Extend (s)	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA
Protected Phases	4			8		5	2		6		6
Permitted Phases	4			8		2			6		6
Detector Phase	4	4		8	8	5	2		6	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0	11.0	24.0		24.0	24.0	24.0
Total Split (s)	34.0	34.0		34.0	34.0	15.0	56.0		41.0	41.0	41.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%	16.7%	62.2%		45.6%	45.6%	45.6%
Maximum Green (s)	28.0	28.0		28.0	28.0	9.0	50.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0			6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag						Lead			Lag	Lag	Lag
Lead-Lag Optimize?						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
Recall Mode	None	None		None	None	None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		1	1		0		3	3	3
v/c Ratio	0.77			0.08		0.23	0.24		0.01	0.37	0.18
Control Delay	42.9			21.4		8.4	7.4		15.0	15.1	4.9
Queue Delay	0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	42.9			21.4		8.4	7.4		15.0	15.1	4.9
Queue Length 50th (ft)	102			9		18	50		0	97	4
Queue Length 95th (ft)	179			28		48	100		5	178	40
Internal Link Dist (ft)	316			279		648			451		
Turn Bay Length (ft)					120				120		85
Base Capacity (vph)	504			588		470	2122		377	1665	739
Starvation Cap Reductn	0			0		0	0		0	0	0
Spillback Cap Reductn	0			0		0	0		0	0	0
Storage Cap Reductn	0			0		0	0		0	0	0
Reduced v/c Ratio	0.48			0.05		0.22	0.24		0.01	0.37	0.18

Intersection Summary

Area Type: Other

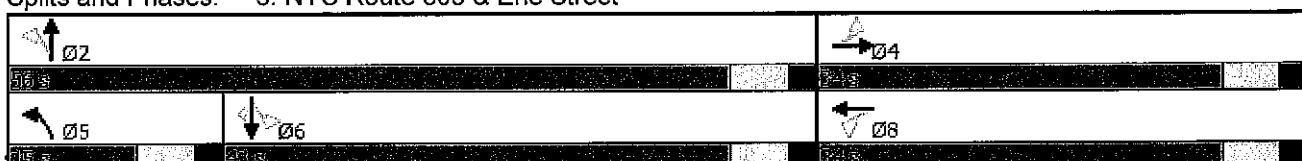
Cycle Length: 90

Actuated Cycle Length: 80.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: NYS Route 303 & Erie Street



Synchro 10 Report

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2021 Build "A" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↔	→	↔	←	↔	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (veh/h)	144	18	62	6	16	4	96	476	5	2	572	123
Future Volume (veh/h)	144	18	62	6	16	4	96	476	5	2	572	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/in	1864	1939	1864	1870	1870	1870	1883	1868	1943	1752	1752	1767
Adj Flow Rate, veh/h	155	19	67	6	17	4	103	512	5	2	615	132
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	9	10	10	10	10	9
Cap, veh/h	257	27	80	100	238	49	494	2365	23	524	1730	776
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.06	0.66	0.66	0.52	0.52	0.52
Sat Flow, veh/h	969	147	430	227	1283	263	1793	3601	35	827	3328	1493
Grp Volume(v), veh/h	241	0	0	27	0	0	103	252	265	2	615	132
Grp Sat Flow(s), veh/h/in	1545	0	0	1773	0	0	1793	1774	1861	827	1664	1493
Q Serve(g_s), s	10.5	0.0	0.0	0.0	0.0	0.0	1.8	4.3	4.3	0.1	8.3	3.5
Cycle Q Clear(g_c), s	11.4	0.0	0.0	0.9	0.0	0.0	1.8	4.3	4.3	0.1	8.3	3.5
Prop In Lane	0.64		0.28	0.22		0.15	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	364	0	0	387	0	0	494	1166	1223	524	1730	776
V/C Ratio(X)	0.66	0.00	0.00	0.07	0.00	0.00	0.21	0.22	0.22	0.00	0.36	0.17
Avail Cap(c_a), veh/h	642	0	0	691	0	0	602	1166	1223	524	1730	776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	0.0	25.6	0.0	0.0	7.1	5.2	5.2	8.8	10.8	9.6
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.0	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	4.2	0.0	0.0	0.4	0.0	0.0	0.6	1.3	1.3	0.0	2.7	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	0.0	0.0	25.7	0.0	0.0	7.2	5.6	5.6	8.8	11.3	10.1
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	B	B
Approach Vol, veh/h	241			27			620			749		
Approach Delay, s/veh	30.6			25.7			5.9			11.1		
Approach LOS	C			C			A			B		
Timer - Assigned Phs	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	56.0		20.1	10.4	45.6		20.1					
Change Period (Y+Rc), s	6.0		6.0	6.0	6.0		6.0					
Max Green Setting (Gmax), s	50.0		28.0	9.0	35.0		28.0					
Max Q Clear Time (g_c+11), s	6.3		13.4	3.8	10.3		2.9					
Green Ext Time (p_c), s	1.5		0.7	0.1	2.8		0.0					
Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									

2021 Build "A" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak AM Hour  
11/27/2019



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↘	↑ ↗	↑	↗ ↙	↓ ↗	↓
Traffic Volume (vph)	1	4	122	4	23	205
Future Volume (vph)	1	4	122	4	23	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	12	12	10
Grade (%)	0%		0%		-1%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.887		0.996			
Flt Protected	0.992				0.995	
Satd. Flow (prot)	1520	0	1606	0	0	1612
Flt Permitted	0.992				0.995	
Satd. Flow (perm)	1520	0	1606	0	0	1612
Link Speed (mph)	30		30			30
Link Distance (ft)	518		509			492
Travel Time (s)	11.8		11.6			11.2
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%
Adj. Flow (vph)	1	5	153	5	29	256
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	158	0	0	285
Enter Blocked Intersection No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.09	1.00	0.99	1.09
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized

2021 Build "A" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak AM Hour  
11/27/2019

Intersection						
Int Delay, s/veh	0.6					
Movement	WB1	WB2	NB1	NB2	SBL	SBT
Lane Configurations	V	↑	↓	↑	↓	↑
Traffic Vol, veh/h	1	4	122	4	23	205
Future Vol, veh/h	1	4	122	4	23	205
Conflicting Peds #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
R1 Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage #	-	0	-	0	-	-
Grade, %	0	-	0	-	-	-1
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	1	5	153	5	29	256

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	470	156	0 0 158 0
Stage 1	156	- - -	- - -
Stage 2	314	- - -	- - -
Critical Hdwy	6.5	6.3	4.2 -
Critical Hdwy Stg 1	5.5	- - -	- - -
Critical Hdwy Stg 2	5.5	- - -	- - -
Follow-up Hdwy	3.59	3.39	- - 2.29 -
Pot Cap-1 Maneuver	538	869	1374 -
Stage 1	853	- - -	- - -
Stage 2	723	- - -	- - -
Platoon blocked, %	- - -	- - -	- - -
Mov Cap-1 Maneuver	25	869	- - 1374 -
Mov Cap-2 Maneuver	25	- - -	- - -
Stage 1	832	- - -	- - -
Stage 2	723	- - -	- - -

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.8
HCM LOS	A	-	-

Minor Lane/Major Mvmt	NBT	NBR	VBLn1	SBL	SBT
Capacity (veh/h)	-	-	768	1374	-
HCM Lane V/C Ratio	-	-	0.008	0.021	-
HCM Control Delay (s)	-	-	9.7	7.7	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	-

2021 Build "A" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak PM Hour  
11/27/2019



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Shared Lane	Protected	Permitted
Lane Configurations	Y			↑↑	↑↑				
Traffic Volume (vph)	2	35	6	1039	623	39			
Future Volume (vph)	2	35	6	1039	623	39			
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
Lane Width (ft)	14	12	10	10	10	10			
Grade (%)	6%			-1%	4%				
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95			
Frt	0.872			0.991					
Flt Protected	0.998								
Satd. Flow (prot)	1677	0	0	3225	3040	0			
Flt Permitted	0.998								
Satd. Flow (perm)	1677	0	0	3225	3040	0			
Link Speed (mph)	30			30	30				
Link Distance (ft)	468			1408	450				
Travel Time (s)	10.6			32.0	10.2				
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Heavy Vehicles (%)	2%	2%	2%	5%	8%	2%			
Adj. Flow (vph)	2	38	7	1142	685	43			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	40	0	0	1149	728	0			
Enter Blocked Intersection No	No	No	No	No	No	No			
Lane Alignment	Left	Right	Left	Left	Left	Right			
Median Width(ft)	14			0	0				
Link Offset(ft)	0			0	0				
Crosswalk Width(ft)	16			16	16				
Two way Left Turn Lane									
Headway Factor	0.96	1.04	1.09	1.09	1.12	1.12			
Turning Speed (mph)	15	9	15		9				
Sign Control	Stop			Free	Free				

Intersection Summary

Area Type: Other  
Control Type: Unsignalized

2021 Build "A" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak PM Hour  
11/27/2019

Intersection							
Int Delay, s/veh	0.4						
Movement	EBL	EER	NBL	NBT	SBT	SBR	
Lane Configurations			↑↑	↑↑			
Traffic Vol, veh/h	2	35	6	1039	623	39	
Future Vol, veh/h	2	35	6	1039	623	39	
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	-	-	
Grade, %	6	-	-	-1	4	-	
Peak Hour Factor	91	91	91	91	91	91	
Heavy Vehicles, %	2	2	2	5	8	2	
Mvmt Flow	2	38	7	1142	685	43	

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	1292	364	728	0	-	0
Stage 1	707	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Critical Hdwy	8.04	7.54	4.14	-	-	-
Critical Hdwy Stg 1	7.04	-	-	-	-	-
Critical Hdwy Stg 2	7.04	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	101	596	871	-	-	-
Stage 1	355	-	-	-	-	-
Stage 2	428	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	99	596	871	-	-	-
Mov Cap-2 Maneuver	99	-	-	-	-	-
Stage 1	347	-	-	-	-	-
Stage 2	428	-	-	-	-	-

Approach	EB	NB	SB	SBR
HCM Control Delay, s	8.4	0.2	0	-
HCM LOS	B	-	-	-

Minor Lane/Major Mvmt	NBL	NBT	BL1	SBT	SBR
Capacity (veh/h)	871	-	469	-	-
HCM Lane V/C Ratio	0.008	-	-0.087	-	-
HCM Control Delay (s)	9.2	0.1	13.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

2021 Build "A" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Lane Group	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	→	→	↔	←	←	↔	↑	↑	↔	↓	↓	↔
Traffic Volume (vph)	237	8	83	59	5	20	21	835	12	14	600	42
Future Volume (vph)	237	8	83	59	5	20	21	835	12	14	600	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	11	12	12	10	12	12	10	12
Grade (%)	4%			-4%			0%			0%		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.850			0.968			0.998			0.990	
Flt Protected		0.954			0.966			0.999			0.999	
Satd. Flow (prot)	0	1652	1500	0	1717	0	0	3165	0	0	3139	0
Flt Permitted		0.689			0.639			0.923			0.925	
Satd. Flow (perm)	0	1193	1500	0	1136	0	0	2925	0	0	2906	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			16			2			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		563			289			1101			1408	
Travel Time (s)		12.8			6.6			25.0			32.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	10%	6%	8%	2%	6%	10%
Adj. Flow (vph)	260	9	91	65	5	22	23	918	13	15	659	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	269	91	0	92	0	0	954	0	0	720	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0				0			0			0	
Link Offset(ft)	0				0			0			0	
Crosswalk Width(ft)	16				16			16			16	
Two way Left Turn Lane												
Headway Factor	1.03	1.07	1.07	0.97	1.02	0.97	1.00	1.09	1.00	1.00	1.09	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases	4		4	8		8		2		2		6
Permitted Phases	4		4	8		2				6		
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0	46.0	46.0	46.0		66.0	66.0		66.0	66.0	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%		58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0		60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	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	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
v/c Ratio		0.63	0.15		0.22			0.61			0.46	
Control Delay		37.9	5.7		22.4			20.0			17.0	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		37.9	5.7		22.4			20.0			17.0	
Queue Length 50th (ft)		159	0		37			237			158	
Queue Length 95th (ft)		256	34		78			303			207	

2021 Build "A" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	483			209			1021			1328		
Turn Bay Length (ft)												
Base Capacity (vph)	426	594		416			1567			1561		
Starvation Cap Reductn	0	0		0			0			0		
Spillback Cap Reductn	0	0		0			0			0		
Storage Cap Reductn	0	0		0			0			0		
Reduced v/c Ratio	0.63	0.15		0.22			0.61			0.46		

Intersection Summary

Area Type: Other

Cycle Length: 112

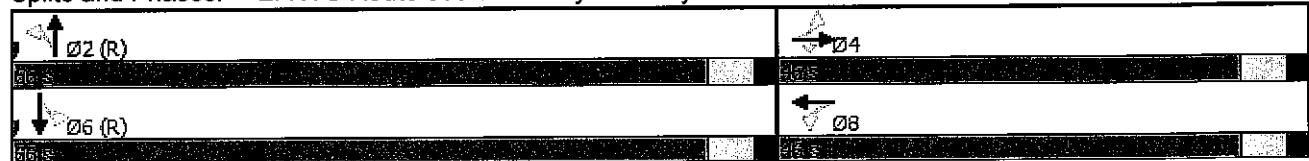
Actuated Cycle Length: 112

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Splits and Phases: 2: NYS Route 303 & Bradley Parkway



2021 Build "A" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Movement	EBl	EBR	EBR	WBl	WBr	NEl	NEB	NBr	SBl	SBr	SBr
Lane Configurations	4	7	7	4	5	11	11	12	14	600	42
Traffic Volume (veh/h)	237	8	83	59	5	20	21	835	12	14	42
Future Volume (veh/h)	237	8	83	59	5	20	21	835	12	14	600
Initial Q (Qb) veh	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus. Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No		No		No	
Adj Sat Flow, veh/h/in	1776	1776	1776	2027	2027	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	260	9	91	65	5	22	23	918	13	15	659
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	6	6
Cap, veh/h	509	15	538	249	26	69	56	1767	25	49	1669
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1247	43	1505	544	73	194	42	3299	46	29	3115
Grp Volume(v), veh/h	269	0	91	92	0	0	493	0	461	375	0
Grp Sat Flow(s), veh/h/in	1290	0	1505	810	0	0	1747	0	1640	1750	0
Q Serve(g_s), s	0.0	0.0	4.6	4.8	0.0	0.0	0.0	0.0	20.4	0.0	0.0
Cycle Q Clear(g_c), s	19.4	0.0	4.6	24.2	0.0	0.0	19.4	0.0	20.4	13.6	0.0
Prop In Lane	0.97		1.00	0.71		0.24	0.05		0.03	0.04	0.13
Lane Grp Cap(c), veh/h	524	0	538	344	0	0	970	0	878	971	0
V/C Ratio(X)	0.51	0.00	0.17	0.27	0.00	0.00	0.51	0.00	0.53	0.39	0.00
Avail Cap(c_a), veh/h	524	0	538	344	0	0	970	0	878	971	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	0.0	24.6	35.9	0.0	0.0	16.6	0.0	16.8	15.2	0.0
Incr.Delay (d2), s/veh	3.6	0.0	0.7	1.9	0.0	0.0	1.9	0.0	2.2	1.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	6.4	0.0	1.8	2.4	0.0	0.0	8.3	0.0	8.0	5.8	0.0
Unsig. Movement Delay, s/veh											
LnGrp Delay(d), s/veh	32.9	0.0	25.3	37.8	0.0	0.0	18.5	0.0	19.0	16.4	0.0
LnGrp LOS	C	A	C	D	A	A	B	A	B	B	A
Approach Vol, veh/h	360				92			954			720
Approach Delay, s/veh	31.0				37.8			18.8			16.6
Approach LOS	C				D			B			B
Timer Assigned Phs	12		14		6		18		16		17
Phs Duration (G+Y+Rc), s	66.0		46.0		66.0		46.0				
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s	60.0		40.0		60.0		40.0				
Max Q Clear Time (g_c+l1), s	22.4		21.4		16.2		26.2				
Green Ext Time (p_c), s	4.6		1.1		3.3		0.2				
Intersection Summary											
HCM 6th Ctrl Delay	20.9										
HCM 6th LOS	C										

2021 Build "A" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Lane Group	EBL	EBI	EBC	WBL	WBI	WBC	NBL	NBI	NBC	SBL	SBI	SBC
Lane Configurations												
Traffic Volume (vph)	158	10	56	10	44	10	120	727	1	11	585	170
Future Volume (vph)	158	10	56	10	44	10	120	727	1	11	585	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	10	12	13	10	12	10
Grade (%)			1%			0%			-3%			0%
Storage Length (ft)	0		0	0		0	120		0	120		85
Storage Lanes	0		0	0		0	1		0	1		1
Taper Length (ft)	25		25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor		1.00			1.00							
Frt		0.966			0.979							0.850
Flt Protected		0.966			0.992			0.950				0.950
Satd. Flow (prot)	0	1753	0	0	1805	0	1676	3457	0	1652	3438	1478
Flt Permitted		0.747			0.941		0.314					0.349
Satd. Flow (perm)	0	1354	0	0	1712	0	554	3457	0	607	3438	1478
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			11							159
Link Speed (mph)	30			30			40				40	
Link Distance (ft)	396			359			728				531	
Travel Time (s)	9.0			8.2			12.4				9.1	
Confl. Peds. (#/hr)	1				1							
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	10%	2%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	174	11	62	11	48	11	132	799	1	12	643	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	70	0	132	800	0	12	643	187
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0			0			10			10		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.01	0.96	1.01	1.00	1.00	1.00	1.00	1.07	0.98	0.94	1.09	1.00
Turning Speed (mph)	15		9	15			9	15		9	15	9
Number of Detectors	1	2		1	2		2	2		2	2	2
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83		83	83		83	83	83
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43		43	43	43
Detector 2 Size(ft)	40			40			40	40		40	40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex

2021 Build "A" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019



Lane Group	E BL	E BT	E BR	W BL	W BT	W BR	N BL	N BT	N BR	S BL	S BT	S BR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm-pt	NA		Perm	NA	Perm
Protected Phases	4			8			5	2		6		6
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	34.0	34.0		34.0	34.0		15.0	56.0		41.0	41.0	41.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%		16.7%	62.2%		45.6%	45.6%	45.6%
Maximum Green (s)	28.0	28.0		28.0	28.0		9.0	50.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							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
Recall Mode	None	None		None	None		None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0			7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0			11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		1	1		0			3	3	3
v/c Ratio	0.78			0.18			0.30	0.37		0.04	0.40	0.24
Control Delay	43.9			22.0			9.3	8.8		16.1	16.7	5.1
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Total Delay	43.9			22.0			9.3	8.8		16.1	16.7	5.1
Queue Length 50th (ft)	108			24			24	90		3	106	7
Queue Length 95th (ft)	187			55			62	170		16	191	51
Internal Link Dist (ft)	316			279			648			451		
Turn Bay Length (ft)							120			120		85
Base Capacity (vph)	487			607			473	2165		281	1592	769
Starvation Cap Reductn	0			0			0	0		0	0	0
Spillback Cap Reductn	0			0			0	0		0	0	0
Storage Cap Reductn	0			0			0	0		0	0	0
Reduced v/c Ratio	0.51			0.12			0.28	0.37		0.04	0.40	0.24

**Intersection Summary**

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: NYS Route 303 & Erie Street



2021 Build "A" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Movement	EBl	EBt	EBR	WBl	WBr	NBl	NBr	SBl	SBr
Lane Configurations	↔	↔	↔	↔	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	158	10	56	10	44	10	120	727	1
Future Volume (veh/h)	158	10	56	10	44	10	120	727	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No
Adj Sat Flow, veh/h/ln	1864	1939	1864	1870	1870	1988	1928	2005	1870
Adj Flow Rate, veh/h	174	11	62	11	48	11	132	799	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	2
Cap, veh/h	284	14	73	80	263	54	494	2454	3
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.06	0.65	0.65
Sat. Flow, veh/h	1077	73	385	134	1389	284	1893	3754	5
Grp Volume(v), veh/h	247	0	0	70	0	0	132	390	410
Grp Sat Flow(s), veh/h/ln	1535	0	0	1807	0	0	1893	1832	1927
Q Serve(g_s), s	9.3	0.0	0.0	0.0	0.0	0.0	2.3	7.2	7.2
Cycle Q Clear(g_c), s	11.7	0.0	0.0	2.5	0.0	0.0	2.3	7.2	7.2
Prop In Lane	0.70		0.25	0.16		0.16	1.00		0.00
Lane Grp Cap(c), veh/h	371	0	0	397	0	0	494	1197	1260
V/C Ratio(X)	0.67	0.00	0.00	0.18	0.00	0.00	0.27	0.33	0.33
Avail Cap(c_a), veh/h	630	0	0	699	0	0	600	1197	1260
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	0.0	26.1	0.0	0.0	7.4	5.8	5.8
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.0	0.1	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.3	0.0	0.0	1.1	0.0	0.0	0.7	2.2	2.3
Unsig. Movement Delay, s/veh									
LnGp Delay(d), s/veh	30.4	0.0	0.0	26.2	0.0	0.0	7.5	6.6	6.5
LnGp LOS	C	A	A	C	A	A	A	A	B
Approach Vol, veh/h	247			70			932		842
Approach Delay, s/veh	30.4			26.2			6.7		11.5
Approach LOS	C			C			A		B
Timer Assigned Phs	2		4	5	6		8		
Phs Duration (G+Y+Rc), s	56.0		20.5	10.7	45.3		20.5		
Change Period (Y+Rc), s	6.0		6.0	6.0	6.0		6.0		
Max Green Setting (Gmax), s	50.0		28.0	9.0	35.0		28.0		
Max Q Clear Time (g_c+I1), s	9.2		13.7	4.3	10.5		4.5		
Green Ext. Time (p_c), s	2.6		0.7	0.1	3.2		0.2		
Intersection Summary									
HCM 6th Ctrl Delay			12.1						
HCM 6th LOS			B						

2021 Build "A" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak PM Hour  
11/27/2019



Lane Group	WBL	WBR	NBL	NBR	SBL	SBT
<b>Lane Configurations</b>						
Traffic Volume (vph)	0	24	225	4	6	183
Future Volume (vph)	0	24	225	4	6	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	12	12	10
Grade (%)	0%	0%	-1%			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.865		0.998			
Flt Protected			0.998			
Satd. Flow (prot)	1611	0	1684	0	0	1739
Flt Permitted					0.998	
Satd. Flow (perm)	1611	0	1684	0	0	1739
Link Speed (mph)	30		30			30
Link Distance (ft)	518		509			492
Travel Time (s)	11.8		11.6			11.2
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles (%)	2%	2%	5%	10%	10%	2%
Adj. Flow (vph)	0	32	300	5	8	244
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	305	0	0	252
Enter Blocked Intersection No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.09	1.00	0.99	1.09
Turning Speed (mph)	15	9	9	9	15	
Sign Control	Stop		Free		Free	

**Intersection Summary**

Area Type: Other  
Control Type: Unsignalized

2021 Build "A" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak PM Hour  
11/27/2019

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NET	NBR	SBL	SBT
Lane Configurations	W	B				
Traffic Vol, veh/h	0	24	225	4	6	183
Future Vol, veh/h	0	24	225	4	6	183
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	-	-
Grade, %	0	-	0	-	-	-1
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	5	10	10	2
Mvmt Flow	0	32	300	5	8	244

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	563	303	0	0	305	0
Stage 1	303	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.29	-
Pot Cap-1 Maneuver	187	737	-	-	1212	-
Stage 1	749	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	183	737	-	-	1212	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB			
HCM Control Delay	10.1	0	0.3	-	-	-
HCM LOS	B	-	-	-	-	-

Minor Lane/Major Mvmt	NBT	NBM/BIn1	SBL	SBT		
Capacity (veh/h)	-	-	737	1212	-	-
HCM Lane V/C Ratio	-	-0.043	0.007	-	-	-
HCM Control Delay (s)	-	-	10.1	8	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-	-

2021 Build "B" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak AM Hour  
11/27/2019



Lane Group	E BL	E BR	N BL	N BT	S BT	S BR
Lane Configurations	Y			↑↑	↑↓	↗
Traffic Volume (vph)	4	11	7	550	716	83
Future Volume (vph)	4	11	7	550	716	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	10	10	10	10
Grade (%)	6%			-1%	4%	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.899			0.984		
Flt Protected	0.988			0.999		
Satd. Flow (prot)	1712	0	0	3078	2976	0
Flt Permitted	0.988			0.999		
Satd. Flow (perm)	1712	0	0	3078	2976	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	468			1408	450	
Travel Time (s)	10.6			32.0	10.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	2%	2%	10%	10%	2%
Adj. Flow (vph)	4	12	7	585	762	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	0	592	850	0
Enter Blocked Intersection No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	14			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.96	1.04	1.09	1.09	1.12	1.12
Turning Speed (mph)	15	9	15		9	
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

2021 Build "B" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak AM Hour  
11/27/2019

**Intersection**

Int Delay, s/veh 0.3

Movement	EBL	EBC	NBL	NBT	SBL	SBR
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Lane Configurations 

Traffic Vol, veh/h	4	11	7	550	716	83
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Future Vol, veh/h	4	11	7	550	716	83
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Stop	Stop	Free	Free	Free	Free
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RT Channelized	-	None	-	None	-	None
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Storage Length	0	-	-	-	-	-
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Veh in Median Storage #	-	-	0	0	-	-
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Grade, %	6	-	-	-1	4	-
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Peak Hour Factor	94	94	94	94	94	94
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Heavy Vehicles, %	2	2	2	10	10	2
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Mvmt Flow	4	12	7	585	762	88
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Major/Minor	Minor 2	Major 1	Major 2
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Conflicting Flow All	1113	425	850	0	-	0
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Stage 1	806	-	-	-	-	-
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Stage 2	307	-	-	-	-	-
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Critical Hdwy	8.04	7.54	4.14	-	-	-
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Critical Hdwy Stg 1	7.04	-	-	-	-	-
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Critical Hdwy Stg 2	7.04	-	-	-	-	-
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Follow-up Hdwy	3.52	3.32	2.22	-	-	-
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Pot Cap-1 Maneuver	140	538	784	-	-	-
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Stage 1	306	-	-	-	-	-
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Stage 2	650	-	-	-	-	-
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Platoon blocked, %	-	-	-	-	-	-
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Mov Cap-1 Maneuver	38	538	784	-	-	-
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Mov Cap-2 Maneuver	-	-	-	-	-	-
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Stage 1	302	-	-	-	-	-
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Stage 2	650	-	-	-	-	-
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Approach	EB	NB	SB
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HCM Control Delay, s	17.5	0.2	0
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HCM LOS	C	-	-
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Minor Lane/Major Mvmt	NBL	NBT	BLn1	SBL	SBR
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Capacity (veh/h)	784	-	303	-	-
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HCM Lane V/C Ratio	0.009	-	-0.053	-	-
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HCM Control Delay (s)	9.6	0.1	17.5	-	-
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HCM Lane LOS	A	A	C	-	-
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HCM 95th %tile Q(veh)	0	-	0.2	-	-
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2021 Build "B" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019

Lane Group	NBL	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	58	0	13	86	7	6	98	468	29	14	617	120	
Future Volume (vph)	58	0	13	86	7	6	98	468	29	14	617	120	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	11	11	12	11	12	12	10	12	12	10	12	
Grade (%)	4%			4%			0%			0%			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Flt		0.850			0.991			0.993			0.976		
Flt Protected		0.950			0.959			0.992			0.999		
Said Flow (prot)	0	1554	1391	0	1661	0	0	3048	0	0	3001	0	
Flt Permitted		0.701			0.719			0.628			0.936		
Said. Flow (perm)	0	1147	1391	0	1245	0	0	1930	0	0	2812	0	
Right Turn on Red		Yes			Yes			Yes			Yes		
Said. Flow (RTOR)		29			3			7			30		
Link Speed (mph)	30				30			30			30		
Link Distance (ft)	563				289			1101			1408		
Travel Time (s)	12.8				6.6			25.0			32.0		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	10%	2%	10%	8%	2%	2%	5%	10%	4%	7%	10%	7%	
Adj. Flow (vph)	64	0	14	96	8	7	109	520	32	16	686	133	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	64	14	0	111	0	0	661	0	0	835	0	
Enter Blocked Intersection No	No	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right	
Median Width(ft)	0				0			0			0		
Link Offset(ft)	0				0			0			0		
Crosswalk Width(ft)	16				16			16			16		
Two way Left Turn Lane													
Headway Factor	1.03	1.07	1.07	0.97	1.02	0.97	1.00	1.09	1.00	1.00	1.09	1.00	
Turning Speed (mph)	15		9	15		9	15		9	15		9	
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA		
Protected Phases	4				8			2			6		
Permitted Phases	4		4	8				2			6		
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0			24.0	24.0		24.0	24.0	
Total Split (s)	46.0	46.0	46.0	46.0	46.0			66.0	66.0		66.0	66.0	
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%			58.9%	58.9%		58.9%	58.9%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0			60.0	60.0		60.0	60.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0			4.0	4.0		4.0	4.0	
All-Red Time (s)	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		
Total Lost Time (s)	6.0	6.0		6.0				6.0			6.0		
Lead/Lag													
Lead-Lag Optimize?													
v/c Ratio		0.16	0.03		0.25			0.64			0.55		
Control Delay		25.9	3.5		26.6			21.6			18.1		
Queue Delay		0.0	0.0		0.0			0.0			0.0		
Total Delay		25.9	3.5		26.6			21.6			18.1		
Queue Length 50th (ft)		31	0		54			166			191		
Queue Length 95th (ft)		64	7		100			233			250		

2021 Build "B" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)	483			209			1021			1328		
Turn Bay Length (ft)												
Base Capacity (vph)	409	515		446			1037			1520		
Starvation Cap Reductn	0	0		0			0			0		
Spillback Cap Reductn	0	0		0			0			0		
Storage Cap Reductn	0	0		0			0			0		
Reduced v/c Ratio	0.16	0.03		0.25			0.64			0.55		

Intersection Summary

Area Type: Other

Cycle Length: 112

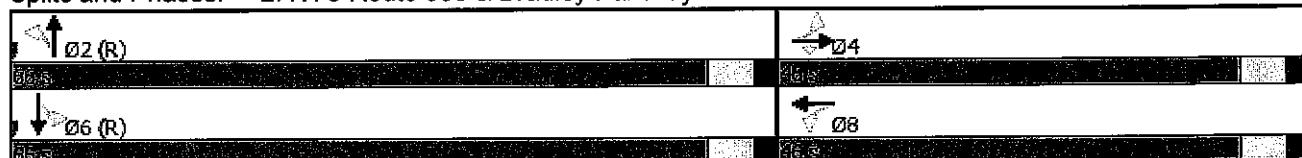
Actuated Cycle Length: 112

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Splits and Phases: 2: NYS Route 303 & Bradley Parkway



2021 Build "B" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak AM Hour  
11/27/2019

Movement	EGL	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SET	SBR
Lane Configurations	4	1	1	1	1	1	1	1	1	1	1	1	1
Traffic Volume (veh/h)	58	0	13	86	7	6	98	468	29	14	617	120	
Future Volume (veh/h)	58	0	13	86	7	6	98	468	29	14	617	120	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No	No		No	No		No
Adj Sat Flow, veh/h/ln	1776	1776	1658	2027	2027	2027	1752	1752	1752	1752	1752	1752	
Adj Flow Rate, veh/h	64	0	14	96	8	7	109	520	32	16	686	133	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Percent Heavy Veh, %	2	2	10	2	2	2	10	10	10	10	10	10	
Cap, veh/h	555	0	502	504	42	33	197	1047	69	48	1436	275	
Arrive On Green	0.36	0.00	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54	0.54	
Sat Flow, veh/h	1375	0	1405	1242	118	92	284	1955	129	27	2681	513	
Grp Volume(v), veh/h	64	0	14	111	0	0	273	0	388	446	0	389	
Grp Sat Flow(s),veh/h/ln	1375	0	1405	1452	0	0	797	0	1571	1720	0	1502	
Q Serve(g_s), s	0.0	0.0	0.7	5.3	0.0	0.0	18.6	0.0	17.1	0.0	0.0	18.2	
Cycle Q Clear(g_c), s	3.1	0.0	0.7	8.4	0.0	0.0	36.8	0.0	17.1	17.8	0.0	18.2	
Prop In Lane	1.00		1.00	0.86		0.06	0.40		0.08	0.04		0.34	
Lane Grp Cap(c), veh/h	555	0	502	578	0	0	472	0	842	955	0	805	
V/C Ratio(X)	0.12	0.00	0.03	0.19	0.00	0.00	0.58	0.00	0.46	0.47	0.00	0.48	
Avail Cap(c_a), veh/h	555	0	502	578	0	0	472	0	842	955	0	805	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh	24.1	0.0	23.4	26.7	0.0	0.0	23.3	0.0	16.0	16.2	0.0	16.3	
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.7	0.0	0.0	5.1	0.0	1.8	1.6	0.0	2.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.3	2.3	0.0	0.0	6.3	0.0	6.4	7.3	0.0	6.5	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	24.6	0.0	23.5	27.4	0.0	0.0	28.4	0.0	17.9	17.8	0.0	18.4	
LnGrp LOS	C	A	C	C	A	A	C	A	B	B	A	B	
Approach Vol, veh/h	78		111					661			835		
Approach Delay, s/veh	24.4		27.4					22.2			18.1		
Approach LOS	C		C					C			B		
Timer - Assigned Phs	2		4		6		8						
Phs Duration (G+Y+Rc), s	66.0		46.0		66.0		46.0						
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0						
Max Green Setting (Gmax), s	60.0		40.0		60.0		40.0						
Max Q Clear Time (g_c+l1), s	38.8		5.1		20.2		10.4						
Green Ext Time (p_c), s	3.3		0.2		4.0		0.4						
Intersection Summary													
HCM 6th Ctrl Delay	20.6												
HCM 6th LOS	C												

2021 Build "B" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

	EBL	EBT	EER	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓	↑↓
Traffic Volume (vph)	147	18	62	6	16	4	96	486	5	2	578	124
Future Volume (vph)	147	18	62	6	16	4	96	486	5	2	578	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	10	12	13	10	12	10
Grade (%)	-1%				0%		-3%				0%	
Storage Length (ft)	0	0	0	0	0	120	0	120	0	120	85	
Storage Lanes	0	0	0	0	0	1	0	1	0	1	1	
Taper Length (ft)	25		25			25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00	
Ped Bike Factor	1.00				1.00		1.00					0.97
Flt	0.963			0.980			0.999					0.850
Flt Protected	0.969			0.989		0.950				0.950		
Satd. Flow (prot)	0	1720	0	0	1781	0	1569	3328	0	1532	3282	1383
Flt Permitted	0.788			0.928		0.335				0.456		
Satd. Flow (perm)	0	1398	0	0	1671	0	552	3328	0	735	3282	1345
Right Turn on Red		Yes			Yes				Yes			Yes
Satd. Flow (RTOR)	22			4			2					117
Link Speed (mph)	30			30			40					40
Link Distance (ft)	396			359			728					531
Travel Time (s)	9.0			8.2			12.4					9.1
Confl. Peds. (#/hr)	1				1	3						3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	7%	2%	2%	10%	9%	10%	10%	10%	10%	9%
Adj. Flow (vph)	158	19	67	6	17	4	103	523	5	2	622	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	244	0	0	27	0	103	528	0	2	622	133
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0			0			10					10
Link Offset(ft)	0			0			0					0
Crosswalk Width(ft)	16			16			16					16
Two way Left Turn Lane												
Headway Factor	1.01	0.96	1.01	1.00	1.00	1.00	1.07	0.98	0.94	1.09	1.00	1.09
Turning Speed (mph)	15		9	15			9	15		9	15	9
Number of Detectors	1	2		1	2		2	2		2	2	2
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83		83	83		83	83	83
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	40
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43		43	43	43
Detector 2 Size(ft)	40			40			40	40		40	40	40
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex

2021 Build "B" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

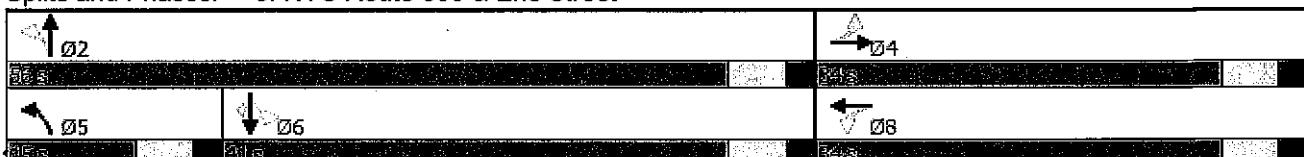


Lane Group	EBI	EBT	EPR	WBI	WBT	WBR	NBI	NBT	NBR	SBI	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4			8		5	2			6	
Permitted Phases	4				8		2				6	
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	34.0	34.0		34.0	34.0		15.0	56.0		41.0	41.0	41.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%		16.7%	62.2%		45.6%	45.6%	45.6%
Maximum Green (s)	28.0	28.0		28.0	28.0		9.0	50.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							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
Recall Mode	None	None		None	None		None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		1	1		0			3	3	3
v/c Ratio	0.77			0.07			0.24	0.25		0.01	0.37	0.18
Control Delay	43.0			21.3			8.5	7.5		15.0	15.3	5.0
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Total Delay	43.0			21.3			8.5	7.5		15.0	15.3	5.0
Queue Length 50th (ft)	104			9			18	52		1	100	4
Queue Length 95th (ft)	181			28			48	103		5	182	40
Internal Link Dist (ft)	316			279			648				451	
Turn Bay Length (ft)							120			120		85
Base Capacity (vph)	503			587			465	2116		371	1660	738
Starvation Cap Reductn	0			0			0	0		0	0	0
Spillback Cap Reductn	0			0			0	0		0	0	0
Storage Cap Reductn	0			0			0	0		0	0	0
Reduced v/c Ratio	0.49			0.05			0.22	0.25		0.01	0.37	0.18

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	80.3
Natural Cycle:	60
Control Type:	Actuated-Uncoordinated

Splits and Phases: 3: NYS Route 303 & Erie Street



Synchro 10 Report

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Job# 19003643A - R.H.

2021 Build "B" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak AM Hour  
11/27/2019

Movement	EBI	EBI	EBR	WBI	WBI	WBR	NBI	NBI	NBR	SBI	SBI	SBR
Lane Configurations	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	147	18	62	6	16	4	96	486	5	2	578	124
Future Volume (veh/h)	147	18	62	6	16	4	96	486	5	2	578	124
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A <sub>pbT</sub> )	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/in	1864	1939	1864	1870	1870	1870	1883	1868	1943	1752	1752	1767
Adj Flow Rate, veh/h	158	19	67	6	17	4	103	523	5	2	622	133
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	9	10	10	10	10	9
Cap, veh/h	261	27	79	100	240	49	490	2360	23	519	1726	774
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.06	0.66	0.66	0.52	0.52	0.52
Sat Flow, veh/h	977	143	424	228	1281	262	1793	3602	34	819	3328	1493
Grp Volume(v), veh/h	244	0	0	27	0	0	103	258	270	2	622	133
Grp Sat Flow(s), veh/h/in	1544	0	0	1772	0	0	1793	1774	1862	819	1664	1493
Q Serve(g_s), s	10.7	0.0	0.0	0.0	0.0	0.0	1.8	4.5	4.5	0.1	8.4	3.6
Cycle Q Clear(g_c), s	11.6	0.0	0.0	0.9	0.0	0.0	1.8	4.5	4.5	0.1	8.4	3.6
Prop In Lane	0.65		0.27	0.22		0.15	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	367	0	0	390	0	0	490	1163	1220	519	1726	774
V/C Ratio(X)	0.66	0.00	0.00	0.07	0.00	0.00	0.21	0.22	0.22	0.00	0.36	0.17
Avail Cap(c_a), veh/h	640	0	0	689	0	0	597	1163	1220	519	1726	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	0.0	0.0	25.6	0.0	0.0	7.2	5.3	5.3	8.9	10.9	9.7
Incl. Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.0	0.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	4.2	0.0	0.0	0.4	0.0	0.0	0.6	1.3	1.4	0.0	2.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	0.0	0.0	25.6	0.0	0.0	7.3	5.7	5.7	8.9	11.5	10.2
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	B	B
Approach Vol, veh/h	244			27			631			757		
Approach Delay, s/veh	30.6			25.6			6.0			11.2		
Approach LOS	C			C			A			B		
Timer Assigned Phs	2	3	4	5	6	7	8	9	10	11	12	13
Phs Duration (G+Y+R <sub>c</sub> ), s	56.0		20.3	10.4	45.6		20.3					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0	6.0	6.0		6.0					
Max Green Setting (Gmax), s	50.0		28.0	9.0	35.0		28.0					
Max Q Clear Time (g_c+l1), s	6.5		13.6	3.8	10.4		2.9					
Green Ext Time (p_c), s	1.6		0.7	0.1	2.8		0.0					
Intersection Summary												
HCM 6th Ctrl Delay			12.3									
HCM 6th LOS			B									

2021 Build "B" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak AM Hour  
11/27/2019



Lane Group	WBL	WBR	NBL	NBR	SBL	SBT	WBL	WBR	NBL	NBR	SBL	SBT
<b>Lane Configurations</b>												
Traffic Volume (vph)	1	6	122	4	28	205						
Future Volume (vph)	1	6	122	4	28	205						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Width (ft)	12	12	10	12	12	10						
Grade (%)	0%		0%			-1%						
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00						
Frt	0.880		0.996									
Flt Protected	0.994				0.994							
Satd. Flow (prot)	1511	0	1606	0	0	1610						
Flt Permitted	0.994				0.994							
Satd. Flow (perm)	1511	0	1606	0	0	1610						
Link Speed (mph)	30		30			30						
Link Distance (ft)	518		509			492						
Travel Time (s)	11.8		11.6			11.2						
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80						
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%						
Adj. Flow (vph)	1	8	153	5	35	256						
<b>Shared Lane Traffic (%)</b>												
Lane Group Flow (vph)	9	0	158	0	0	291						
Enter Blocked Intersection No	No	No	No	No	No	No						
Lane Alignment	Left	Right	Left	Right	Left	Left						
Median Width(ft)	12		0			0						
Link Offset(ft)	0		0			0						
Crosswalk Width(ft)	16		16			16						
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.09	1.00	0.99	1.09						
Turning Speed (mph)	15	9	9	15								
Sign Control	Stop		Free			Free						

**Intersection Summary**

Area Type: Other  
Control Type: Unsignalized

2021 Build "B" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak AM Hour  
11/27/2019

Intersection						
Int Delay, s/veh	0.8					
Movement	WBL	WB	NBT	NBR	SBL	SBT
Lane Configurations	1	6	122	4	28	205
Traffic Vol, veh/h	1	6	122	4	28	205
Future Vol, veh/h	0	0	0	0	0	0
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
Grade, %	0	-	0	-	-	-1
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	10	10	10	10	10	10
Mvmt Flow	1	8	153	5	35	256

Major/Minor	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	482	156	0	0	158	0
Stage 1	156	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Critical Hdwy	6.5	6.3	-	-	4.2	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.39	-	-	2.29	-
Pot Cap-1 Maneuver	629	869	-	-	1374	-
Stage 1	853	-	-	-	-	-
Stage 2	714	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	513	869	-	-	1374	-
Mov Cap-2 Maneuver	513	-	-	-	-	-
Stage 1	827	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB	LT	RT	MT
HCM Control Delay	9.6	0	0.9	-	-	-
HCM LOS	A	-	-	-	-	-

Minor Lane/Major Mvmt	NBT	NBR	WBL	SBT	SBL	LT	RT	MT
Capacity (veh/h)	-	-	791	1374	-	-	-	-
HCM Lane V/C Ratio	-	-	0.011	0.025	-	-	-	-
HCM Control Delay (s)	-	-	9.6	7.7	0	-	-	-
HCM Lane LOS	-	-	A	A	A	-	-	-
HCM 95th %tile Q(veh)	-	-	0	0.1	-	-	-	-

2021 Build "B" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak PM Hour  
11/27/2019



Lane Group	NBL	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑↑	↑↑		
Traffic Volume (vph)	2	35	6	1061	648	39	
Future Volume (vph)	2	35	6	1061	648	39	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	14	12	10	10	10	10	
Grade (%)	6%			-1%	4%		
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95	
Frt	0.872			0.991			
Flt Protected	0.998						
Satd. Flow (prot)	1677	0	0	3225	3039	0	
Flt Permitted	0.998						
Satd. Flow (perm)	1677	0	0	3225	3039	0	
Link Speed (mph)	30			30	30		
Link Distance (ft)	468			1408	450		
Travel Time (s)	10.6			32.0	10.2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	
Heavy Vehicles (%)	2%	2%	2%	5%	8%	2%	
Adj. Flow (vph)	2	38	7	1166	712	43	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	40	0	0	1173	755	0	
Enter Blocked Intersection No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Left	Left	Right	
Median Width(ft)	14			0	0		
Link Offset(ft)	0			0	0		
Crosswalk Width(ft)	16			16	16		
Two way Left Turn Lane							
Headway Factor	0.96	1.04	1.09	1.09	1.12	1.12	
Turning Speed (mph)	15	9	15		9		
Sign Control	Stop			Free	Free		

Intersection Summary

Area Type: Other

Control Type: Unsignalized

2021 Build "B" Traffic Volumes  
1: NYS Route 303 & Corporate Drive

Peak PM Hour  
11/27/2019

**Intersection**

Int Delay, s/veh 0.4

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	2	35	6	1061	648	39
Future Vol, veh/h	2	35	6	1061	648	39
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	-
Grade, %	6	-	-	1	4	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	5	8	2
Mvmt Flow	2	38	7	1166	712	43

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All	1331	378	755	0	-	0
Stage 1	734	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Critical Hdwy	8.04	7.54	4.14	-	-	-
Critical Hdwy Stg 1	7.04	-	-	-	-	-
Critical Hdwy Stg 2	7.04	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	94	582	851	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	92	582	851	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	420	-	-	-	-	-

**Approach** EB NB SB

HCM Control Delay, s	18.8	0.2	0
HCM LOS	B	-	-

**Minor Lane/Major Mvmt** NBL NB EBLn1 SBT SBR

Capacity (veh/h)	851	-	452	-	-
HCM Lane V/C Ratio	0.008	-	0.09	-	-
HCM Control Delay (s)	9.3	0.1	13.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

2021 Build "B" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Lane Group	NBI	EBI	EBR	WBI	WBR	NBI	NBR	SBI	SBR
Lane Configurations	4	7	5	4	4	11	11	4	4
Traffic Volume (vph)	258	8	91	59	5	20	30	835	12
Future Volume (vph)	258	8	91	59	5	20	30	835	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	11	12	11	12	12	10	12
Grade (%)	4%			4%		0%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt		0.850		0.968		0.998		0.985	
Frt Protected		0.954		0.966		0.998		0.999	
Satd. Flow (prot)	0	1652	1500	0	1717	0	0	3161	0
Frt Permitted		0.688		0.608		0.901		0.925	
Satd. Flow (perm)	0	1191	1500	0	1081	0	0	2854	0
Right Turn on Red		Yes		Yes		Yes		Yes	
Satd. Flow (RTOR)		100		16		2		16	
Link Speed (mph)	30		30			30		30	
Link Distance (ft)	563		289			1101		1408	
Travel Time (s)	12.8		6.6		25.0			32.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	10%	6%	8%
Adj. Flow (vph)	284	9	100	65	5	22	33	918	13
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	293	100	0	92	0	0	964	0
Enter Blocked Intersection No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0		0		0		0
Link Offset(ft)	0		0		0		0		0
Crosswalk Width(ft)	16		16		16		16		16
Two way Left Turn Lane									
Headway Factor	1.03	1.07	1.07	0.97	1.02	0.97	1.00	1.09	1.00
Turning Speed (mph)	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	4		8		2		2		6
Permitted Phases	4		4	8		2		6	
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	46.0	46.0	46.0	46.0	46.0	66.0	66.0	66.0	66.0
Total Split (%)	41.1%	41.1%	41.1%	41.1%	41.1%	58.9%	58.9%	58.9%	58.9%
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0	60.0	60.0	60.0	60.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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	
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0	6.0	6.0	
Lead/Lag									
Lead-Lag Optimize?									
v/c Ratio		0.69	0.17		0.23		0.63		0.48
Control Delay		40.6	5.6		22.6		20.5		17.2
Queue Delay		0.0	0.0		0.0		0.0		0.0
Total Delay		40.6	5.6		22.6		20.5		17.2
Queue Length 50th (ft)		178	0		38		244		165
Queue Length 95th (ft)		285	36		79		313		216

2021 Build "B" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour  
11/27/2019

Lane Group	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Internal Link Dist (ft)	483			209			1021			1328		
Turn Bay Length (ft)												
Base Capacity (vph)	425	600		396			1529			1554		
Starvation Cap Reductn	0	0		0			0			0		
Spillback Cap Reductn	0	0		0			0			0		
Storage Cap Reductn	0	0		0			0			0		
Reduced v/c Ratio	0.69	0.17		0.23			0.63			0.48		

Intersection Summary

Area Type: Other

Cycle Length: 112

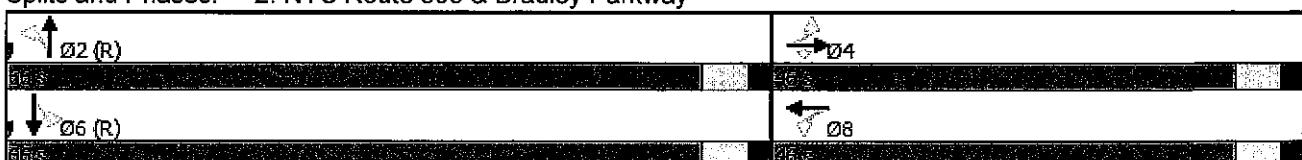
Actuated Cycle Length: 112

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Splits and Phases: 2: NYS Route 303 & Bradley Parkway



2021 Build "B" Traffic Volumes  
2: NYS Route 303 & Bradley Parkway

Peak PM Hour

11/27/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	1	1	5	20	30	835	12	14	600	67	
Traffic Volume (veh/h)	258	8	91	59	5	20	30	835	12	14	600	67
Future Volume (veh/h)	258	8	91	59	5	20	30	835	12	14	600	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/in	1776	1776	1776	2027	2027	2027	1811	1811	1811	1811	1811	1811
Adj Flow Rate, veh/h	284	9	100	65	5	22	33	918	13	15	659	74
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	6	6	6	6	6	6
Cap, veh/h	508	14	538	227	24	62	71	1729	24	48	1598	177
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	1246	39	1505	481	68	172	69	3228	45	28	2983	331
Grp Volume(v), veh/h	293	0	100	92	0	0	492	0	472	393	0	355
Grp Sat Flow(s), veh/h/in	1286	0	1505	721	0	0	1702	0	1640	1753	0	1589
Q Serve(g_s), s	0.0	0.0	5.1	5.0	0.0	0.0	0.0	0.0	21.0	0.0	0.0	15.0
Cycle Q Clear(g_c), s	21.7	0.0	5.1	26.7	0.0	0.0	19.4	0.0	21.0	14.4	0.0	15.0
Prop In Lane	0.97		1.00	0.71		0.24	0.07		0.03	0.04		0.21
Lane Grp Cap(c), veh/h	522	0	538	312	0	0	946	0	879	972	0	851
V/C Ratio(X)	0.56	0.00	0.19	0.29	0.00	0.00	0.52	0.00	0.54	0.40	0.00	0.42
Avail Cap(c_a), veh/h	522	0	538	312	0	0	946	0	879	972	0	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	24.8	37.5	0.0	0.0	16.6	0.0	17.0	15.4	0.0	15.6
Incr Delay (d2), s/veh	4.3	0.0	0.8	2.4	0.0	0.0	2.0	0.0	2.4	1.2	0.0	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	7.1	0.0	1.9	2.4	0.0	0.0	8.3	0.0	8.2	6.1	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.4	0.0	26.6	39.9	0.0	0.0	18.6	0.0	19.3	16.7	0.0	17.1
LnGrp LOS	C	A	C	D	A	A	B	A	B	B	A	B
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	66.0		46.0		66.0		46.0					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	60.0		40.0		60.0		40.0					
Max Q Clear Time (g_c+I1), s	23.0		23.7		17.0		28.7					
Green Ext Time (p_c), s	4.8		1.2		3.5		0.2					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

2021 Build "B" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Lane Group	EBL	EBT	EBR	WB	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	159	10	56	10	44	10	120	735	1	11	592	171
Future Volume (vph)	159	10	56	10	44	10	120	735	1	11	592	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	12	12	10	12	13	10	12	10
Grade (%)		1%			0%			-3%			0%	
Storage Length (ft)	0	0	0	0	0	120	0	0	120	0	85	
Storage Lanes	0	0	0	0	0	1	0	0	1	0	1	1
Taper Length (ft)	25		25			25			25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Ped Bike Factor	1.00			1.00								
Frt		0.966			0.979							0.850
Flt Protected		0.966			0.992		0.950				0.950	
Satd. Flow (prot)	0	1753	0	0	1805	0	1676	3457	0	1652	3438	1478
Flt Permitted		0.746			0.941		0.310				0.346	
Satd. Flow (perm)	0	1352	0	0	1712	0	547	3457	0	602	3438	1478
Right Turn on Red			Yes			Yes			Yes		Yes	
Satd. Flow (RTOR)		19			11							158
Link Speed (mph)	30			30			40				40	
Link Distance (ft)	396			359			728				531	
Travel Time (s)	9.0			8.2			12.4				9.1	
Confl. Peds. (#/hr)	1				1							
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	10%	2%	2%	2%	2%	6%	2%	2%	5%	2%
Adj. Flow (vph)	175	11	62	11	48	11	132	808	1	12	651	188
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	248	0	0	70	0	132	809	0	12	651	188
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)	0			0			10			10		
Link Offset(ft)	0			0			0			0		
Crosswalk Width(ft)	16			16			16			16		
Two way Left Turn Lane												
Headway Factor	1.01	0.96	1.01	1.00	1.00	1.00	1.07	0.98	0.94	1.09	1.00	1.09
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Number of Detectors	1	2		1	2		2	2	2	2	2	2
Detector Template	Left			Left								
Leading Detector (ft)	20	83		20	83		83	83		83	83	83
Trailing Detector (ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Position(ft)	0	-5		0	-5		-5	-5		-5	-5	-5
Detector 1 Size(ft)	20	40		20	40		40	40		40	40	40
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)	43			43			43	43		43	43	43
Detector 2 Size(ft)	40			40			40	40		40	40	40
Detector 2 Type	CI+Ex			CI+Ex			CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex

2021 Build "B" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Lane Group	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0			0.0		0.0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases	4			8			5	2		6		6
Permitted Phases	4			8			2			6		6
Detector Phase	4	4		8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	24.0	24.0		24.0	24.0		11.0	24.0		24.0	24.0	24.0
Total Split (s)	34.0	34.0		34.0	34.0		15.0	56.0		41.0	41.0	41.0
Total Split (%)	37.8%	37.8%		37.8%	37.8%		16.7%	62.2%		45.6%	45.6%	45.6%
Maximum Green (s)	28.0	28.0		28.0	28.0		9.0	50.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	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
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	6.0
Lead/Lag							Lead			Lag		Lag
Lead-Lag Optimize?							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
Recall Mode	None	None		None	None		None	Max		Max	Max	Max
Walk Time (s)	7.0	7.0		7.0	7.0		7.0			7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0			11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		1	1		0			3	3	3
v/c Ratio	0.78			0.18			0.30	0.37		0.04	0.41	0.24
Control Delay	44.1			21.9			9.4	8.9		16.2	16.8	5.2
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	0.0
Total Delay	44.1			21.9			9.4	8.9		16.2	16.8	5.2
Queue Length 50th (ft)	108			24			24	92		3	108	8
Queue Length 95th (ft)	188			55			62	173		16	194	53
Internal Link Dist (ft)	316			279			648				451	
Turn Bay Length (ft)							120			120		85
Base Capacity (vph)	486			607			469	2163		278	1590	768
Starvation Cap Reductn	0			0			0	0		0	0	0
Spillback Cap Reductn	0			0			0	0		0	0	0
Storage Cap Reductn	0			0			0	0		0	0	0
Reduced v/c Ratio	0.51			0.12			0.28	0.37		0.04	0.41	0.24

**Intersection Summary:**

Area Type: Other

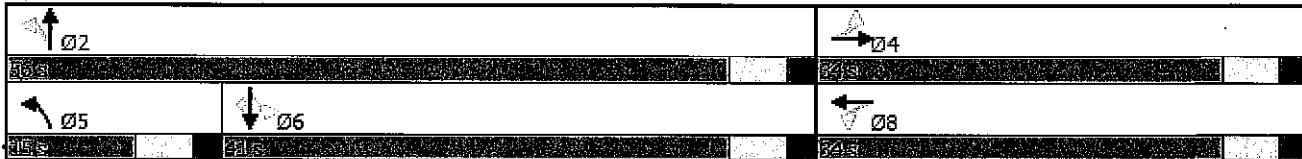
Cycle Length: 90

Actuated Cycle Length: 80.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 3: NYS Route 303 & Erie Street



2021 Build "B" Traffic Volumes  
3: NYS Route 303 & Erie Street

Peak PM Hour  
11/27/2019

Movement	EBL	EBT	EBC	WBL	WBT	WBC	NBL	NBT	NBC	SBL	SBT	SBC
Lane Configurations	↔	→	↔	←	↔	←	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	159	10	56	10	44	10	120	735	1	11	592	171
Future Volume (veh/h)	159	10	56	10	44	10	120	735	1	11	592	171
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No											
Adj Sat Flow, veh/h/in	1864	1939	1864	1870	1870	1870	1988	1928	2005	1870	1826	1870
Adj Flow Rate, veh/h	175	11	62	11	48	11	132	808	1	12	651	188
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	6	6	2	5	2
Cap, veh/h	285	14	73	80	264	54	489	2452	3	440	1781	814
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.06	0.65	0.65	0.51	0.51	0.51
Sat Flow, veh/h	1079	72	384	134	1389	284	1893	3754	5	674	3469	1585
Grp Volume(v), veh/h	248	0	0	70	0	0	132	394	415	12	651	188
Grp Sat Flow(s), veh/h/in	1535	0	0	1807	0	0	1893	1832	1927	674	1735	1585
Q Serve(g_s), s	9.3	0.0	0.0	0.0	0.0	0.0	2.3	7.3	7.3	0.7	8.6	5.0
Cycle Q Clear(g_c), s	11.8	0.0	0.0	2.5	0.0	0.0	2.3	7.3	7.3	0.7	8.6	5.0
Prop In Lane	0.71		0.25	0.16		0.16	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	372	0	0	398	0	0	489	1196	1258	440	1781	814
V/C Ratio(X)	0.67	0.00	0.00	0.18	0.00	0.00	0.27	0.33	0.33	0.03	0.37	0.23
Avail Cap(c_a), veh/h	629	0	0	698	0	0	596	1196	1258	440	1781	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	0.0	26.1	0.0	0.0	7.5	5.9	5.9	9.2	11.2	10.3
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.1	0.0	0.0	0.1	0.7	0.7	0.1	0.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/in	4.3	0.0	0.0	1.1	0.0	0.0	0.7	2.3	2.4	0.1	3.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.4	0.0	0.0	26.2	0.0	0.0	7.6	6.6	6.6	9.3	11.7	11.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	B	B
Approach Vol, veh/h	248			70			941			851		
Approach Delay, s/veh	30.4			26.2			6.7			11.5		
Approach LOS	C			C			A			B		
Timer - Assigned Phs	2		4	3	6		8					
Phs Duration (G+Y+Rc), s	56.0		20.6	10.7	45.3		20.6					
Change Period (Y+Rc), s	6.0		6.0	6.0	6.0		6.0					
Max Green Setting (Gmax), s	50.0		28.0	9.0	35.0		28.0					
Max Q Clear Time (g_c+l1), s	9.3		13.8	4.3	10.6		4.5					
Green Ext Time (p_c), s	2.6		0.7	0.1	3.2		0.2					
<b>Intersection Summary:</b>												
HCM 6th Ctrl Delay			12.1									
HCM 6th LOS			B									

2021 Build "B" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak PM Hour  
11/27/2019



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	Other
Lane Configurations	Y	Y	↑	Y	Y	↓	
Traffic Volume (vph)	0	27	225	4	10	183	
Future Volume (vph)	0	27	225	4	10	183	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	10	12	12	10	
Grade (%)	0%		0%		-1%		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.865		0.998				
Frt Protected					0.997		
Satd. Flow (prot)	1611	0	1684	0	0	1735	
Frt Permitted					0.997		
Satd. Flow (perm)	1611	0	1684	0	0	1735	
Link Speed (mph)	30		30		30		
Link Distance (ft)	518		509		492		
Travel Time (s)	11.8		11.6		11.2		
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	
Heavy Vehicles (%)	2%	2%	5%	10%	10%	2%	
Adj. Flow (vph)	0	36	300	5	13	244	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	36	0	305	0	0	257	
Enter Blocked Intersection No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Left	Right	Left	Left	
Median Width(ft)	12		0		0		
Link Offset(ft)	0		0		0		
Crosswalk Width(ft)	16		16		16		
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.09	1.00	0.99	1.09	
Turning Speed (mph)	15	9	9	9	15		
Sign Control	Stop		Free		Free		

Intersection Summary

Area Type: Other

Control Type: Unsignalized

2021 Build "B" Traffic Volumes  
4: Western Highway & Corporate Drive

Peak PM Hour  
11/27/2019

**Intersection**

Int Delay, s/veh 0.8

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	27	225	4	10	183
Future Vol, veh/h	0	27	225	4	10	183
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
Grade, %	0	-	0	-	-	-1
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	5	10	10	2
Mvmt Flow	0	36	300	5	13	244

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	573	303	0	0	305	0
Stage 1	303	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.2	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.51	8.318	-	-	2.29	-
Pot Cap-1 Maneuver	481	737	-	-	1212	-
Stage 1	749	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	75	737	-	-	1212	-
Mov Cap-2 Maneuver	75	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	775	-	-	-	-	-

**Approach** WB NE SB

HCM Control Delay	10.1	0	0.4
HCM LOS	B	-	-

**Minor Lane/Major Mvmt** NBT NBR/BIn1 SBL SBT

Capacity (veh/h)	-	-	737	1212	-
HCM Lane V/C Ratio	-	-	0.049	0.011	-
HCM Control Delay (s)	-	-	10.1	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-