Draft Generic Environmental Impact Statement

Prepared for Suffolk County for the:

Declaration as Surplus and Subsequent Sale of 250 Acres of County Owned Land in Yaphank for Mixed Use Development Purposes

Yaphank, Town of Brookhaven
Suffolk County, New York

Volume 5 of 6

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Cameron Engineering & Associates, LLP

APPENDIX F
TRAFFIC IMPACT STUDY

TRAFFIC IMPACT STUDY

FOR

DECLARATION AS SURPLUS AND SUBSEQUENT SALE OF 250 ACRES OF COUNTY OWNED LAND IN YAPHANK FOR MIXED USE DEVELOPMENT PURPOSES

FOR

SUFFOLK COUNTY

PREPARED BY

CAMERON ENGINEERING & ASSOCIATES, LLP

JANUARY 2011

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1. Background

1.1 Purpose of Report

During the 1950s and 1960s, Suffolk County experienced extremely rapid population growth. The table below indicates historical census data for the eight most recent counts:

Table 1-1: Suffolk County Historical Census Data

Decade	Census Year	Population	Percent Change
1920 – 1930	1930	161,055	46.1%
1930 – 1940	1940	197,355	22.5%
1940 – 1950	1950	276,129	39.9%
1950 – 1960	1960	666,784	141.5%
1960 – 1970	1970	1,124,950	68.7%
1970 – 1980	1980	1,284,231	14.2%
1980 – 1990	1990	1,321,864	2.9%
1990 – 2000	2000	1,419,369	7.4%

Source: www.Wikipedia.com

Given the extreme population growth rates of the 1950s and 1960s, and the open-space-based development potential of the eastern Towns, the County projected its future population eventually reaching three million – nearly triple the census count of 1960 – with a commensurate need for County services. The County therefore proceeded to purchase property in Yaphank to plan for these 1-2 million additional residents. By the mid-1970s, Suffolk County had acquired hundreds of acres.

In the years since, as shown in Table 1-1, the County's population has leveled off; there were 1,467,000 residents in 2005, and newer projections yield a maximum sustainable population of 1.7 million. The number is limited by environmental- and drinking water-based development limits, and by low density zoning. It is also unlikely that there will be a sizeable shift to the easternmost Towns, where just ten percent of Suffolk residents live. Therefore, the County is looking to consolidate its buildings in Yaphank and sell off the remaining area as surplus for private development.

The Suffolk County Council on Environmental Quality ("CEQ") has recommended that this proposed action is a Type I action pursuant to the State Environmental Quality Review Act ("SEQRA") and requires the preparation of a DEIS/DGEIS, with the County as the lead agency. This traffic study is part of the Generic Environmental Impact Statement (GEIS) being prepared pursuant to the State Environmental Quality Review Act ("SEQRA") to evaluate the potential impacts of various land use proposals and projected development scenarios for the County Yaphank Facilities.

The site and the adjacent roadway network are shown in Figure 1-1.

Cameron Engineering & Associates, LLP has performed a detailed traffic investigation of the traffic impacts of the proposed development on the adjacent street system. It reviews the area's existing roadway characteristics and traffic conditions (including traffic volumes, traffic flow quality, and geometry), determines future conditions if this project is not constructed by 2025, estimates the project's expected peak-period trip generation, and assesses the effect of this additional traffic on the surrounding roads.

1.2 Study Methodology

The methodology for this report included the following tasks:

A. Review the Existing Conditions on the subject property and in the surrounding area

- Examine any available concept plans, master plans, County reports and studies, and other project-related material (e.g., local ordinances).
- Determine the Average Annual Daily Traffic [AADT] volumes near the property using New York State Department of Transportation [NYSDOT] and Suffolk County Department of Public Works [SCDPW] 24-hour and intersection data.
- Visit the site to observe prevailing traffic conditions and nearby physical features, and to identify "key intersections" that this proposal might impact. Note all intersection geometries and control features (i.e., stop sign locations, traffic signal phases and timing and coordination).
- Perform traffic counts at those key intersections during weekday AM (7:00-9:00 am), Midday (11:00 am-2:00 pm), PM (4:00-6:00 pm), and Saturday midday (11:00 am-2:00 pm) peak traffic periods.
- Apply seasonal adjustments to the counted volumes to establish the average existing peak hour volumes.
- Assess the availability of nearby services and trip generators such as schools, commuter routes, shopping, banking, and emergency facilities.
- Obtain from the NYSDOT and analyze the latest available three-year accident history at the study intersections.
- Determine the existing levels of service (LOS) at the study intersections, using *Synchro* version 7. This program complies with the guidelines of the *2000 Highway Capacity Manual* (*HCM 2000*) and this version is used by the SCDPW.

B. Determine the "No Build" Scenario: Future Conditions if the project is not built

- Obtain the area's ambient growth rate from the *Long Island Transportation Plan* (*LITP 2000*) study; this rate accounts for general population growth.
- Correspond with representatives of the Town of Brookhaven, the SCDPW, and the NYSDOT to determine if there are any other projects being planned nearby, whose traffic has the potential to affect traffic volumes through any of the key intersections within the 15 year scope of this study. Obtain data about trip generation from corresponding reports, or calculate the data using the Institute of Transportation Engineers (ITE) *Trip Generation* manual, 8th Edition.
- Obtain any data regarding geometric, signalization, or pavement marking improvements (municipal, or associated with the other planned projects).
- These three features combine to provide the expected future traffic conditions in 2025 if the project is not constructed (the "No Build" scenario).
- Use *Synchro* to determine No Build levels of service at the key intersections.

C. Determine the "Build" Scenario: Future Conditions if the project is built

- Discuss planned access to the site: the number of access points, their numbers of needed lanes, their need for auxiliary lanes, and their need for signalization.
- Determine the number of parking spaces required by the Town, and determine if parking needs on the site will be met. Compare the requirements in Town Code to the data in the manual, *Parking Generation* (3rd Edition) published by the ITE in 2003, the *Shared Parking* manual published by the Urban Land Institute (ULI) and to any locally-based data (e.g., traffic or parking counts at existing facilities).
- Use the ITE *Trip Generation* manual and any locally-based data to determine the numbers of site-generated trips during the four study periods.
- Distribute site-generated traffic to specific movements at the key intersections. Adding the site traffic to the No Build volumes yields the expected future traffic volumes if the project is constructed in 2025 (the "Build" scenario).
- Use *Synchro* to determine the Build levels of service at the key intersections.

D. Determine the traffic impact of the proposed project

- Compare the "No Build" and "Build" levels of service. Any difference between the two scenarios indicates an initial impact on traffic conditions.
- Address impacts by proposing mitigation. Any scenario that includes a mitigation

measure is labeled the "Mitigated Build" condition.

- The comparison between the "No Build" and either the "Build" or "Mitigated Build" scenarios indicates the viability of the proposed development with respect to traffic conditions.
- Discuss the potential traffic impacts of the proposed arena based on the project arena trip volumes as compared to the typical decreases in roadway volumes during the periods when the arena would host events (e.g. weekdays after 6:30 pm and weekend evenings).

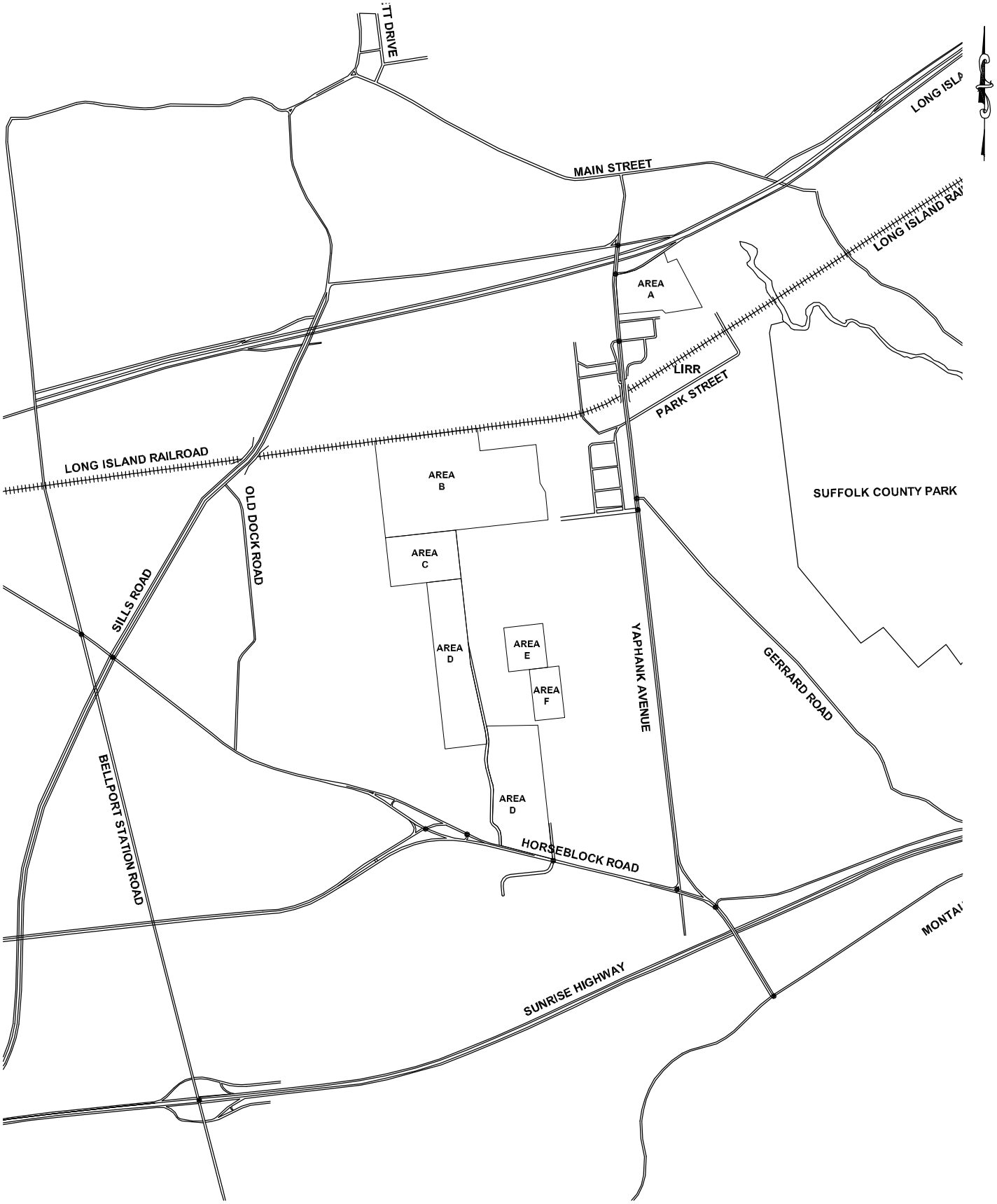
E. Determine the "As of Right" Scenario: Future Conditions if the site is developed per existing zoning

- Based on the yield of each parcel (e.g., 30% of a commercial parcel including room for adequate parking), determine the uses of the County property which would be legally permitted without variances. These are the "as of right" uses.
- Discuss planned access to the site: the number of access points, their numbers of needed lanes, their need for auxiliary lanes, and their need for signalization.
- Determine the number of parking spaces required by the Town. Compare the requirements in Town Code to the data in the ITE *Parking Generation* manual (3rd Edition), and to any locally-based data (i.e., traffic or parking counts at existing facilities).
- Use the ITE *Trip Generation* manual (8th Edition) and any necessary locally-based data to determine the numbers of site-generated trips during the four study periods.
- Distribute site-generated traffic to specific movements at the key intersections. Adding the site traffic to the No Build volumes yields the expected future traffic volumes if the project is constructed in 2025 (the "Build" scenario).
- Use *Synchro* to determine the future Build levels of service at the key intersections.

F. Compare the traffic impacts of the proposed As of Right scenario to the proposed Build scenario

- Compare the "No Build" and "As of Right" levels of service. Address impacts (genuine differences in LOS) by proposing mitigation. Any scenario that includes a mitigation measure is labeled the "Mitigated As of Right" condition.
- Provide two sets of comparisons: the No Build with the As of Right or Mitigated

As of Right scenarios, and the No Build and the Build or Mitigated Build scenarios.



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Project Location Map

Figure No. 1-1

2. Existing Conditions

2.1 Existing Land Use

The property is currently zoned for municipal use, industrial use, residential use, and the developed area has various County facilities. The LIE runs to the north of the property, Horseblock Road (County Road 16) is to the south, and Yaphank Avenue (County Road 21) runs north-south on the east side of Parcels B, C, and D, and to the west of Parcel A.

The majority of the surrounding area consists of municipal buildings, vacant space, the County Farm, and residential neighborhoods to the east. The Yaphank station of the LIRR Montauk branch is close by, on the east side of Yaphank Avenue, south of Parcel A.

2.2 Roadway Descriptions

Yaphank Avenue (CR 21) is a north-south SCDPW local road. It has one to two through lanes in each direction with turn lanes at some intersections, and its posted speed limit varies from 40 mph to 50 mph to the south. The Average Annual Daily Traffic (AADT) volume in this area is approximately 8,700 vehicles per day ("vpd") between Horseblock Road and the LIE South Service Road.

The Long Island Expressway (LIE) (I-495) is north of the study area. It is an east-west limited access interstate maintained by NYSDOT, with three lanes in each direction, and a 55 mph speed limit. Nearby LIE exits are:

- Exit 65: Horseblock Road (CR 16)
- Exit 66: Sills Road (CR 101)
- Exit 67: Yaphank Avenue (CR 21)
- Exit 68: William Floyd Parkway (CR 46)
- Exit 69: Wading River Manor Road

The LIE has a one-way service road in each direction west of Exit 66, and is not continuous east of Exit 66. **The LIE North Service Road** is one-way westbound and the **LIE South Service Road** is one-way eastbound. Both service roads generally have two through lanes with turning lanes at some intersections, and the posted speed limit is 40 mph. The AADT volume was 81,547 vpd between Exits 67 and 68 in 2008.

Horseblock Road (CR 16) is a minor SCDPW arterial that runs northwest-southeast. It has two lanes in each direction, turn lanes at certain intersections, and a 40 mph speed limit. Its AADT volume near Yaphank Avenue is approximately 14,300 vpd.

Patchogue-Yaphank Road / Sills Road (CR 101) is a minor SCDPW arterial that runs southwest-northeast. It has two lanes in each direction, turn lanes at certain intersections, and a 40 mph speed limit. Its AADT volume near the LIE is approximately 17,700 vpd.

Woodside Avenue (CR 99) is a minor east-west SCDPW arterial. It has two lanes in each direction, turn lanes at certain intersections, and a 40 mph speed limit. Its AADT volume near Horseblock Road is approximately 7,300 vpd.

Bellport Road is a north-south minor Town of Brookhaven arterial. It has one lane in each direction with turn lanes at key intersections and a 30 mph speed limit.

Glover Drive and **Gerard Road** are east-west local roads under Town of Brookhaven jurisdiction. They have one lane in each direction and 30 mph speed limits.

2.3 Key Intersections

Based on site visits and public comments, the key intersections were identified as:

1. Yaphank Avenue (CR 21) at Long Island Expressway (LIE) North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue (CR 21)/Horseblock Road (CR 16) at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road

Table 2-1 summarizes the geometry and traffic control at each key intersection:

Table 2-1: Roadway Geometry

1. Yaphank Avenue at LIE North Service Road: 3-Phase traffic signal

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-L	12 feet	EB	None	
	1-T	10 feet			
SB	1-T	11 feet	WB	1-LT	11 feet
	1-TR	16 feet		1-TR	11 feet

2. Yaphank Avenue at LIE South Service Road: 3-Phase traffic signal

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-T	11 feet	EB	1-LT	12 feet
	1-R	10 feet		1-R	11 feet
SB	1-L	11 feet	WB	None	
	2-T	11 feet			

3. Yaphank Avenue at SCDPW Driveway (335 Yaphank Avenue): EB-WB Stop signs

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-L	12 feet	EB	1-LTR	16 feet
	1-T	13 feet			
	1-R	12 feet			
SB	1-L	13feet	WB	1-LTR	11 feet
	1-T	12 feet			
	1-TR	10 feet			

4. Yaphank Avenue at Gerard Road: Stop sign on Gerard

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-T	13 feet	EB	None	
	1-R	19 feet			
SB	1-L	12 feet	WB	1-LR	14 feet
	1-T	13 feet			

5. Yaphank Avenue at Glover Drive: Stop sign on Glover

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-L	12 feet	EB	1-L	12 feet
	1-T	12 feet		1-R	12 feet
SB	1-T	13 feet	WB	None	
	1-R	11 feet			

6. Yaphank Avenue at Horseblock Road: 3-phase traffic signal

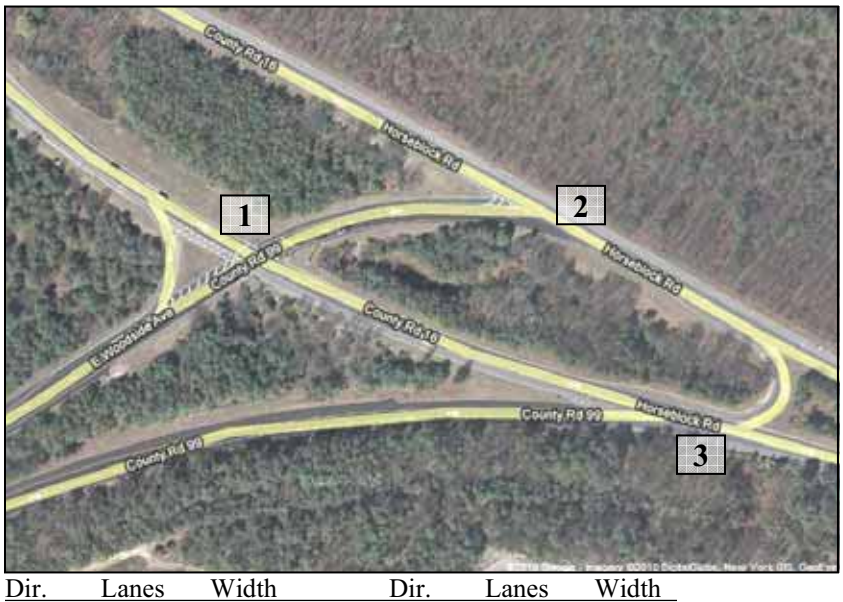
Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-LTR	13 feet	EB	1-L	10 feet
				2-T	11 feet
				1-R	14 feet
SB	1-L	10 feet	WB	1-L	9 feet
	1-T	11 feet		2-T	12 feet
	1-R	12 feet		1-R* - Separate channelized diverge	

*Note: For the purposes of this study, this intersection was analyzed as a 3-legged intersection, with the northbound approach not considered in the analysis. Peak traffic volumes for the northbound approach consisted of 7 vehicles over the course of one hour. Due to program limitations of Synchro, analyzing the approach as a LTR lane does not accurately reflect what is occurring in the field. Removing the northbound approach and analyzing the intersection as having 3 legs provides results more in line with what was observed by our engineers.

7. Horseblock Road at Sunrise Highway Exit 57: Stop Sign on Sunrise Highway Exit 57 & merges

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1T	12 feet	EB	None	
	1TR	12 feet			
SB	1-L	12 feet	WB	1-L	12 feet
	2-T	12 feet		1-R	12 feet

8. Horseblock Road (CR 16) at Woodside Avenue (CR 99): 2-phase traffic signal



Dir.	Lanes	Width	Dir.	Lanes	Width
[1] At Traffic Signal:					
WB CR 99			EB CR 16		
	1-LT	12 feet		2-T	13 feet
	1-T	12 feet		1-R	11 feet

[2] At WB CR 16 Diverge:		*[3] At EB CR 16 U-Turn:*	
2-T	12 feet	2-T»1-T	12 feet
2-diverge	12 feet	1-L	11 feet
		1-Merge from EB 99	13 feet

*Note: Although the image shows 3 separate points for possible merge/diverge opportunities and also conflict points, the TIS only considered "Point 1" in the above picture, due to a traffic signal existing at that location. At Points 2 and 3, traffic volumes are in free flow, indicating that drivers are allowed to continue their way of travel without having to stop for other vehicles. Therefore, analysis at these locations would yield no levels of service results.

9. Horseblock Road at Brookhaven Town Landfill: 3-phase traffic signal

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-L	12 feet	EB	2-T	12 feet
	1-R	12 feet		1-R	11 feet
SB	None		WB	1-L	10 feet
				1-T	12 feet

10. Horseblock Road at Patchogue-Yaphank Road: 4-phase traffic signal
* CR 101 is north-south; Horseblock Road CR 16 is east-west

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-L	12 feet	EB	1-L	11 feet
	2-T	12 feet		2-T	11 feet
	1-R	11 feet		1-R	13 feet
SB	1-L	12 feet	WB	1-L	11 feet
	2-T	12 feet		2-T	13 feet
	1-R	11 feet		1-R	13 feet

11. Horseblock Road at Bellport Road: 2-phase traffic signal

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-LTR	16 feet	EB	1-LT	12 feet
				1-R	12 feet
SB	1-LTR	16 feet	WB	1-LT	11 feet
				1-R	10 feet

12. Horseblock Road (CR 16) at LIE North Service Road: 2-phase traffic signal

Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-L	12 feet	EB	None	
	1-T	12 feet			
SB	2-T	15 feet	WB	1-LT	15 feet
	1-R* Channelized			1-T	15 feet
				1-R	11 feet

13. Horseblock Road (CR 16) at LIE South Service Road: 2-phase traffic signal

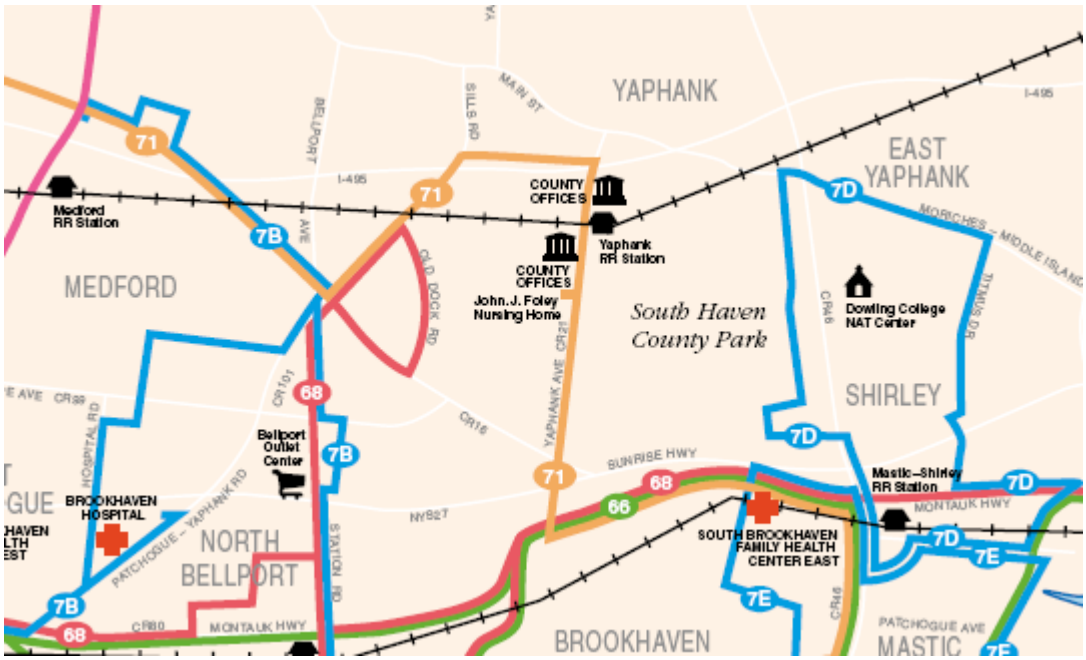
Dir.	Lanes	Width	Dir.	Lanes	Width
NB	1-T	13 feet	EB	1-L	16 feet
	1-R	16 feet		1-T	13 feet
				1-R	10 feet
SB	2-L	11 feet	WB	None	
	2-T	11 feet			

KEY:
L = Left turn lane T = Through lane R = Right turn lane
LT = Combination of left turns and through movements in one lane
TR = Combination of through movements and right turns in one lane
LR = Combination of left and right turns in one lane
LTR = Combination of left turn, through, and right turn movements in one lane

2.4 Public Transportation

Figure 2-1 depicts area bus routes and train stations:

Figure 2-1: Area Bus Routes and LIRR Stations



Source: Suffolk County Transit website (http://www.sct-bus.org/images/stsystemmap.pdf)

2.4.1 Bus Service

Suffolk County Transit (SCT) provides buses and ride-sharing services close to the proposed development. Near this site, SCT has services along Yaphank Avenue, Sunrise Highway, Long Island Avenue, Patchogue-Yaphank Road, and Horseblock Road. The S71 route runs adjacent to the site between Setauket and Mastic, and has scheduled stops at many points of interests, including:

- Mastic Shirley Long Island Rail Road (LIRR) station
- John J. Foley Nursing Home
- Yaphank County Center
- Brookhaven Town Hall
- Suffolk County Community College, Selden
- S.U.N.Y. University Hospital
- S.U.N.Y. Stony Brook University
- Stony Brook Railroad

The S66 is the next closest route, and runs east-west along Sunrise Highway close to the proposed development. The S66 has scheduled stops along the Montauk branch for the LIRR, stopping in Patchogue, Bellport, and Mastic Shirley.

SCT also provides Suffolk County Accessible Transit (SCAT), a van service for individuals with disabilities.

2.4.2 Rail Service

The LIRR, maintained by the Metropolitan Transit Authority (MTA), provides east-west passenger rail service between New York City and eastern Long Island. The Yaphank LIRR station is relatively close to the County property. Trains from the Yaphank station often transfer at Ronkonkoma; however, the Ronkonkoma station provides direct connections to Jamaica and Penn Station (the main New York City transit hubs). The Bellport and Mastic Shirley stations can be commuted to via the previously mentioned SCT transit system. Both stations also provide direct connections to Jamaica and Penn Station.

2.4.3 Airport

Long Island MacArthur Airport is located in Islip in Suffolk County, approximately 12-14 miles west of the site. According to the Airport webpage and the Federal Aviation Administration Airport Master Record (Form 5010), in 2008 there were over 2.1 million passengers who passed through this airport. This is an average of more than 5,500 people per day on approximately 22,000 flights.

2.5 Traffic Volumes

Traffic volumes were counted at the study intersections on the following dates:

- Weekday Counts: 7:00-9:00 am, 11:00 am – 2:00 pm, 4:00-6:00 pm
  - Tuesday, June 15, 2010
  - Wednesday, June 16, 2010
  - Thursday, June 17, 2010
  - Thursday, November 17, 2010 (at Horseblock Road – Brookhaven Town Landfill intersection)
- Saturday Counts: 11:00 am – 2 pm
  - Saturday, June 12, 2010
  - Saturday, November 19, 2010 (at Horseblock Road – Brookhaven Town Landfill intersection)

The counts were performed on days with typical peak hour traffic patterns: no reported incidents, no signal equipment malfunctions, no inclement weather (rain or snow), and temperatures mainly between 40 and 60 degrees. The counted volumes are shown from

Figure 2-2 through Figure 2-5. The peak hour volumes are shown in Appendix B. The table in Appendix B also illustrates the 2025 No Build, 2025 Build volumes, plus any percentage changes in movement volumes between the No Build and Build scenarios that will be discussed in subsequent sections of this study.

2.5.1 Vehicle Classification

Due to the existing industrial and manufacturing facilities around the proposed site, it is known that the truck-and-bus traffic during at least one peak hour will exceed 2 percent. Therefore, traffic counts at certain intersections included specific counts of "heavy vehicle" (*vehicles with more than 6 wheels).* Those intersections are:

- Yaphank Avenue (CR 21) and LIE North Service Road
- Yaphank Avenue (CR 21) and Glover Drive
- Yaphank Avenue (CR 21) and Horseblock Road (CR 16)
- Yaphank Avenue (CR 21) and Sunrise Highway Exit 57
- Horseblock Road (CR 16) and Woodside Avenue (CR 99)
- Patchogue-Yaphank Road (CR 101) and Horseblock Road (CR 16)
- Bellport Road and Horseblock Road (CR 16)
- Horseblock Road (CR 16) and LIE North Service Road

Any counted percentage other than the *Synchro* program's 2% default heavy vehicle percentage was input manually. Table 2-2 on the next page illustrates the heavy vehicle percentages counted on each approach at these intersections.

Table 2-2: Heavy Vehicle Percentages

Dir.	Mvmt.	2010 Existing Volumes AM	MID	PM	Truck/Bus Volumes AM	MID	PM	Heavy Vehicle % (by approach) AM	MID	PM
INTERSECTION: Yaphank Avenue (CR 21) and LIE North Service Road										
NB	Left									
	Thr	658	969	756	38	56	14	6%	6%	2%
	Right									
SB	Left									
	Thr	497	478	337	19	25	10	4%	5%	3%
	Right									
WB	Left									
	Thr	397	508	427	25	85	14	6%	17%	3%
	Right									
Intersection										
INTERSECTION: Yaphank Avenue (CR 21) and Glover Drive										
NB	Left									
	Thr	1078	911	747	125	143	70	12%	16%	9%
	Right									
SB	Left									
	Thr	492	662	776	97	132	66	20%	20%	9%
	Right									
EB	Left									
	Thr	117	371	295	21	51	12	18%	14%	4%
	Right									
Intersection										
INTERSECTION: Yaphank Avenue (CR 21) and Horseblock Road (CR 16)										
NB	Left									
	Thr	7	15	17		1	1	0%	7%	6%
	Right									
SB	Left									
	Thr	469	800	1168		88	25	0%	11%	2%
	Right									
EB	Left									
	Thr	658	1306	1487		165	41	0%	13%	3%
	Right									
WB	Left									
	Thr	1986	2597	1314		246	42	0%	9%	3%
	Right									
Intersection										
INTERSECTION: Yaphank Avenue/Horseblock Road and Sunrise Highway Exit 57										
NB	Left									
	Thr	1434	1264	1132	68	129	32	5%	10%	3%
	Right									
SB	Left									
	Thr	734	1494	1927	92	107	48	13%	7%	2%
	Right									
WB	Left									
	Thr	671	1714	579	50	164	28	7%	10%	5%
	Right									
Intersection										
INTERSECTION: Patchogue-Yaphank Road (CR 101) and Horseblock Road (CR 16)										
NB	Left									
	Thr	885	1101	1215	50	74	109	6%	7%	9%
	Right									
SB	Left									
	Thr	1039	1194	1000	39	100	38	4%	8%	4%
	Right									
EB	Left									
	Thr	845	1219	1033	120	235	58	14%	19%	6%
	Right									
WB	Left									
	Thr	893	1324	1097	142	223	136	16%	17%	12%
	Right									
Intersection										
INTERSECTION: Bellport Road and Horseblock Road (CR 16)										
NB	Left									
	Thr	445	1001	694	23	58	15	5%	6%	2%
	Right									
SB	Left									
	Thr	343	381	347	11	11	3	3%	3%	1%
	Right									
EB	Left									
	Thr	988	1910	1559	128	194	40	13%	10%	3%
	Right									
WB	Left									
	Thr	755	1370	856	94	192	39	12%	14%	5%
	Right									
Intersection										
INTERSECTION: Horseblock Road (CR 16) and LIE North Service Road										
NB	Left									
	Thr	1357	2391	1645	76	122	22	6%	5%	1%
	Right									
SB	Left									
	Thr	908	1923	1610	35	34	6	4%	2%	0%
	Right									
WB	Left									
	Thr	1067	1197	1046	10	19	1	1%	2%	0%
	Right									
Intersection										

2.6 Seasonal Adjustment

Traffic volumes vary from month to month; the extent of this variation depends on several factors: the road's location, its use as a route to land uses with significant monthly variations, and its predominant use (as a commuter route, a touring route, or a local route). High-volume and commuter roads (e.g., the LIE, and CR 46) tend to have the least monthly variation, while local roads in the Eastern Towns (with significant summer population and tourism) vary the most.

The majority of the traffic counts for this GEIS were done in June, which is typically the most active month of the year. However, one traffic count was performed in November. When the time of year has the potential to affect traffic volumes, traffic counts can be increased by a NYSDOT "monthly adjustment factor." The factors are month- and location-specific, and provide a means of adjusting counts to determine average or peak conditions. This is standard practice in New York State, and a reasonable method to normalize traffic counts.

The NYSDOT determines seasonal adjustment factors by regularly monitoring approximately 176 24-hour, 365-day continuous count locations across the state. The recorded counts adhere to specific quality control measures, and count equipment must conform to comprehensive accuracy requirements.

Volumes counted during each month of the year are compared to each other to determine a ratio for each month's volume compared to the average volume of any month. These ratios are updated every 2-3 years. For example, say $^{1}/_{12}$ of the total yearly volume is 1000 vpd, and the average for September is 800 vpd. This indicates that volumes in September are 80% of the average monthly volume. Consequently, it is prudent to multiply volumes counted in September by $^{1000}/_{800}$ (1.25) to compensate for the timing of the count. To adjust from one month to another, volumes would be multiplied by the ratio of the factors for the two months in question. The actual factors are published in the NYSDOT annual *Traffic Data Report*, the latest of which was published in 2008. This version is available on the NYSDOT website at https://www.nysdot.gov/divisions/engineering/technical-services/highway-data-services/traffic-data.

NYSDOT classifies the three types of variations into three "Factor Groups" (FG):

Table 2-3: NYSDOT Seasonal Factor Groups

NYSDOT Label	Extent of Seasonal Variations in Traffic Volume
Factor Group 30	**Least Variation (less than 10 percent)**
Factor Group 40	Intermediate Variation (10 to 25 percent)
Factor Group 60	Most Variation (more than 25 percent)

In addition to the 176 continuous count locations, the State regularly performs updated 24-hour traffic counts (lasting for at least 7 days) on all State road segments. The purpose is to maintain an up-to-date account of the AADT volumes on each State road segment. These counts are readily available on the NYSDOT website (www.nysdot.gov). The counts include information such as:

- Location of ATR count machine (name of the road & the nearest cross street)
- Day, date, and times the counts were taken
- Daily total volumes
- Label of the roadway's Factor Group
- Label of the roadway's monthly seasonal adjustment factor

The count sheets for the nearby State and County roads indicate that the adjacent road sections have the least amount of variation. In other words, they are labeled as FG 30. The traffic count at Horseblock Road – Brookhaven Town Landfill was the only traffic count counted in November. Therefore these November traffic volumes were projected to June, the month with the highest monthly factor of the year, and also when all the other study locations' traffic counts were performed. The count was adjusted by the appropriate weekday or weekend ratios of the June and November factors.

Table 2-4: Seasonal Adjustment Factors

	Weekday (AM, Midday, PM)	Weekend (Saturday)
November	1.030	0.858
June	1.105	0.946
Peak Adjustment	**1.073 ($^{1.105}$ / $_{1.030}$)**	**1.103 ($^{0.946}$ / $_{0.858}$)**

To make the adjustments as accurate as possible, the busier summer traffic had to be altered to be less random, so any Peak Hour Factor (PHF) below 0.85 was raised to 0.85 to reflect busier conditions. The seasonally adjusted volumes, shown in Figure 2-6 through Figure 2-9, were used to determine the baseline traffic conditions.

2.7 Existing Levels of Service

An intersection's Level of Service (LOS) describes its quality of traffic flow, and ranges in grade from LOS "A" (relatively congestion-free) to LOS "F" (congested). LOS grades are based on average delay, measured in "seconds per vehicle", and the threshold delays for each grade depend on whether the intersection is controlled by a traffic signal or stop sign. Detailed LOS descriptions can be found in Appendix A. Existing LOS analyses were performed using *Synchro* version 7. Synchro software adheres to the guidelines in the *2000 Highway Capacity Manual* (*HCM 2000*), and version 7 is currently being utilized by the SCDPW.

The existing levels of service are summarized in Appendix C and the actual worksheets are in Appendix D. Appendix C also summarizes the levels of service for the 2025 No Build, 2025 Mitigated No Build, 2025 Build, and 2025 Mitigated Build scenarios.

2.8 Grades and Sight Distance

People exiting the site will need to see vehicles on the main roads to judge when to leave, and motorists on the main roads will need to see people exiting the site in time to let them merge. The required sight distance (i.e., the farthest away a motorist on the main road can be from a driveway and still be seen by a driver waiting to exit, and vice versa) depends on the main road's 85th percentile speed (the speed below which 85% of motorists are traveling). Sight requirements are listed in the text, *A Policy on Geometric Design of Highways and Streets*, published by the American Association of State Highway and Transportation Officials (AASHTO) in 2001. Sight distances at the proposed development's four access points were analyzed.

Since Yaphank Avenue has a speed limit of 50 mph, a 60 mph prevailing traveling speed is appropriate. The proposed access points on Glover Drive, and the new Area A main driveway along Yaphank Avenue are located on relatively flat stretches, with no horizontal curves obstructing the views to or from the driveways. There are also no specific visual obstructions at these locations. Drivers should therefore not have any sight distance issues at these locations.

Horseblock Road has a speed limit of 40 mph. Therefore, a 50 mph prevailing traveling speed is appropriate along this roadway. The proposed development's Area D will connect to the proposed site driveway for Rosh Industrial Park, an adjacent proposed development. At the time of this report, the Rosh Industrial Park has not yet been developed. However, based on their development's January 2008 TIS, prepared by Michael Maris Associate, Inc., Rosh Industrial Park's expected buildout year is 2012. Therefore, this access driveway is expected to be in place by the 2025 build year of this development. As discussed in the January 2008 TIS, auxiliary deceleration lanes are proposed at this intersection in order to remove drivers safely from the through traffic stream on this two-lane road. Therefore, the deceleration lanes will telegraph the upcoming driveway to westbound drivers, in essence increasing their sight distance. Coupled with the intersection's existing traffic signal, Horseblock Road's flat stretches, and lack of horizontal curves, drivers should therefore not have any sight distance issues at this location.

The LIE South Service Road also has a speed limit of 40 mph, so a 50 mph prevailing travel speed is appropriate. Similar to the other proposed access points, the LIE South Service Road is relatively flat with no horizontal curves. There are no visual obstacles at this location. As will be discussed in Section 5.3, deceleration and acceleration lanes are recommended at this location, which helps to increase the eastbound driver's sight distance. Therefore, sight distance should not be an issue at this location.

2.9 Emergency Services

This area of Brookhaven is served by the Suffolk County Police Department, and this site is primarily part of the 5th Precinct (which is headquartered in Patchogue). Fire services are provided by the Yaphank Fire Department, located about 1 mile to the northwest, on Main Street. The police and fire departments both provide emergency medical services. Brookhaven Memorial Hospital Medical Center at Patchogue is on Hospital Road, about 2.6 miles from the property.

2.10 Schools

This site is in the Longwood and South Country School Districts. The nearest elementary school is Charles E. Walters ("CEW") School located at 15 Everett Drive, approximately 1.5 miles to the northwest. Longwood Junior High School and Senior High School are located approximately 4.5 miles away, at 198 and 100 Longwood Road in Middle Island.

2.11 Accident History

Verbal description accident reports for the study intersections and roadways were obtained from the NYSDOT for the three-year period between September 1, 2006 and September 30, 2009. These records were analyzed to determine accident patterns and trends near the site. Accident rates at intersections are typically expressed in terms of "accidents per million entering vehicles (MEV)". Accident rates along roadway segments (links) are typically expressed in terms of "accidents per million vehicle miles (MVM) of travel". Detailed information for each intersection or roadway segment is provided in Appendix E. Intersections or roadway segments not listed below did not have any reported accidents during the analysis period.

Table 2-5: Accident Data Summary

Intersection	Number of Accidents / Rate in accidents per MEV	NYS Average
1. Yaphank Avenue – LIE South Service Road	2 / 0.15	0.11 *

* One of the intersection's legs is a one-way service road; this is not a genuine 3-leg intersection (there are more potential movements and conflicts) and not a 4-leg intersection, so there is no real rate to use for comparison.

The 3 leg intersection accident rate is listed as a reference

2.	Yaphank Avenue – Gerard Avenue	2 / 0.20	0.04
3.	Yaphank Avenue – Glover Drive	1 / 0.09	0.04
4.	Yaphank Avenue – Horseblock Road	9 / 0.36	0.15
5.	Yaphank Avenue/Horseblock Road - Sunrise Highway Exit 57	4 / 0.40	0.04
6.	Horseblock Road – Woodside Avenue	10 / 0.51	0.11*

* Due to its unique geometry and multiple conflict points, this intersection has no real rate to use for comparison. The 3 leg intersection accident rate is listed as a reference.

7.	Horseblock Road – Sills Road	10 / 0.38	0.15
8.	Horseblock Road – Bellport Road	23 / 0.78	0.32
9.	Horseblock Road – LIE North Service Road	14 / 0.48	0.11
10.	Horseblock Road – LIE South Service Road	12 / 0.38	0.11

At the Yaphank Avenue – Gerard Avenue and Glover Drive intersections, there were too few accidents per year to indicate a specific problem even though both intersections have higher-than-average accident rates compared to state average rates.

The Yaphank Avenue – Horseblock Road intersection has a higher-than-average accident rate due to "opposing left turn" accidents, which comprised 5 of the 9 incidents (56%), and whose corresponding rate (0.20 accidents per MEV) is 20 times the statewide average. Preliminary future build analysis indicates the need for protected left turn movements at this location. Since these movements no longer include permitted turns in front of oncoming traffic, the left turn accident rate should decrease once these signal improvements are implemented.

The Yaphank Avenue/Horseblock Road – Sunrise Highway Exit 57 intersection has a higher-than-average rate for multiple accident types. The low number of accidents coupled with the low AADT volumes does not indicate a problem at this location. As mentioned in Section 4, it is proposed that this intersection be signalized prior to the construction of the proposed development. Installation of a traffic signal will help reduce the number of conflicts experienced by drivers at this location, and correspondingly, the accident rate.

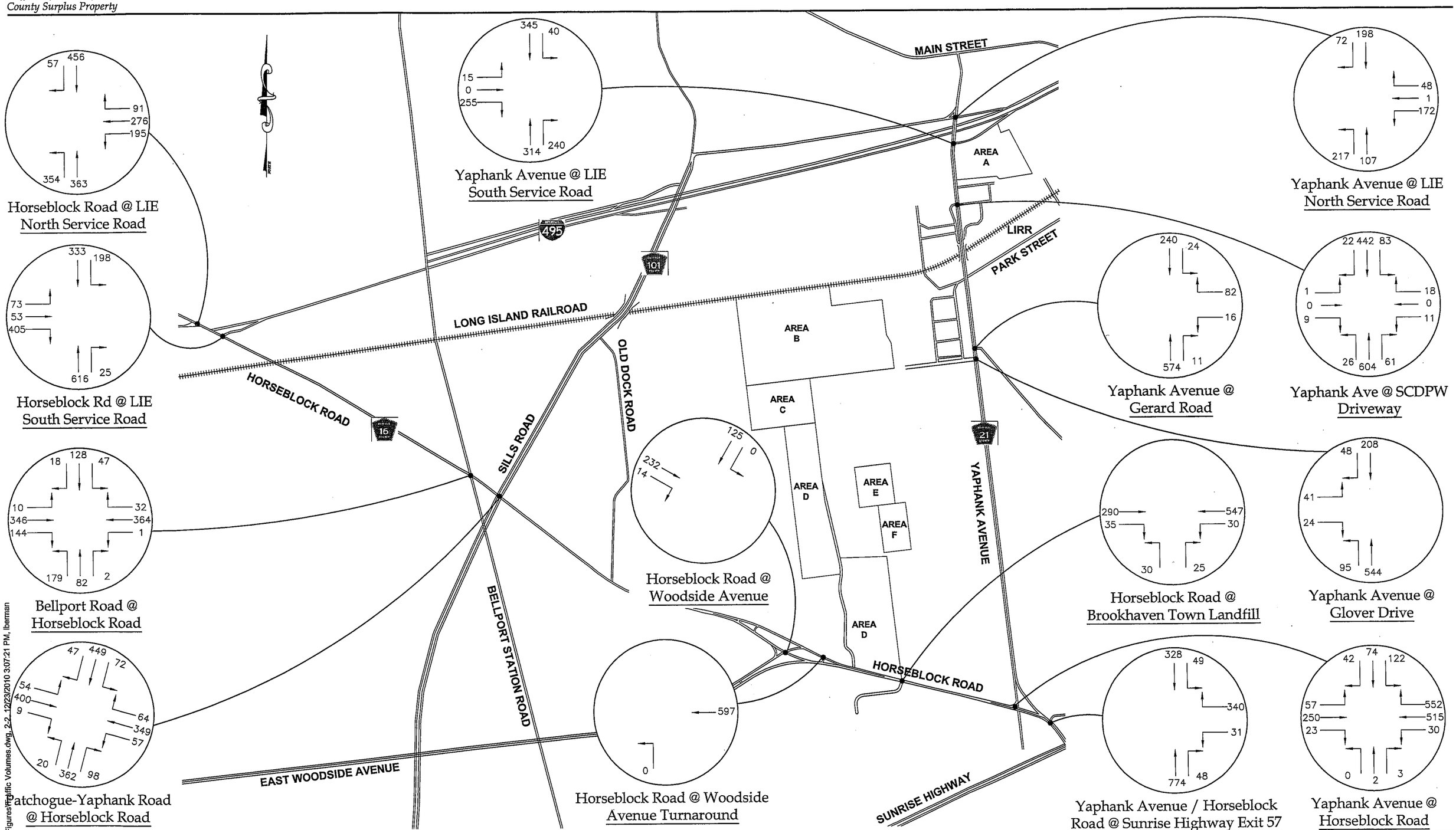
At Horseblock Road – Sills Road, there were 10 accidents during the study period, which corresponds to 0.38 accidents per MEV. This rate is higher than the state average of 0.15 accidents per MEV. Right-angle (0.11 accidents per MEV) and rear end (0.08 accidents per MEV) were 5.5 and 1.3 times the state average.

At Horseblock Road – Bellport Road, there were 23 accidents during the study period, which corresponds to 0.78 accidents per MEV. This rate is higher than the state average of 0.32 accidents per MEV. Rear end accidents were the most frequent type: 7 of the 23, or

30%. The rear end accident rate is 0.24 accidents per MEV, approximately 2.1 times the average.

The Horseblock Road and LIE North Service Road intersection has higher-than-average accident rates due in part to the high number of cars making a northbound left turn. As mentioned in Section 4, it is recommended that a northbound left protected-permitted phase be included prior to construction of the proposed development. This should reduce the number of right-angle and left-turn conflicts experienced by drivers at this location.

At Horseblock Road – LIE South Service Road, there were 12 accidents during the study period, which corresponds to 0.38 accidents per MEV. This rate is higher than the state average of 0.11 accidents per MEV. Rear end accidents were the most frequent type: 6 of the 12, or 50%. The rear end accident rate is 0.19 accidents per MEV, approximately 5 times the average.



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Existing AM Peak Hour Volumes

Figure No. 2-2

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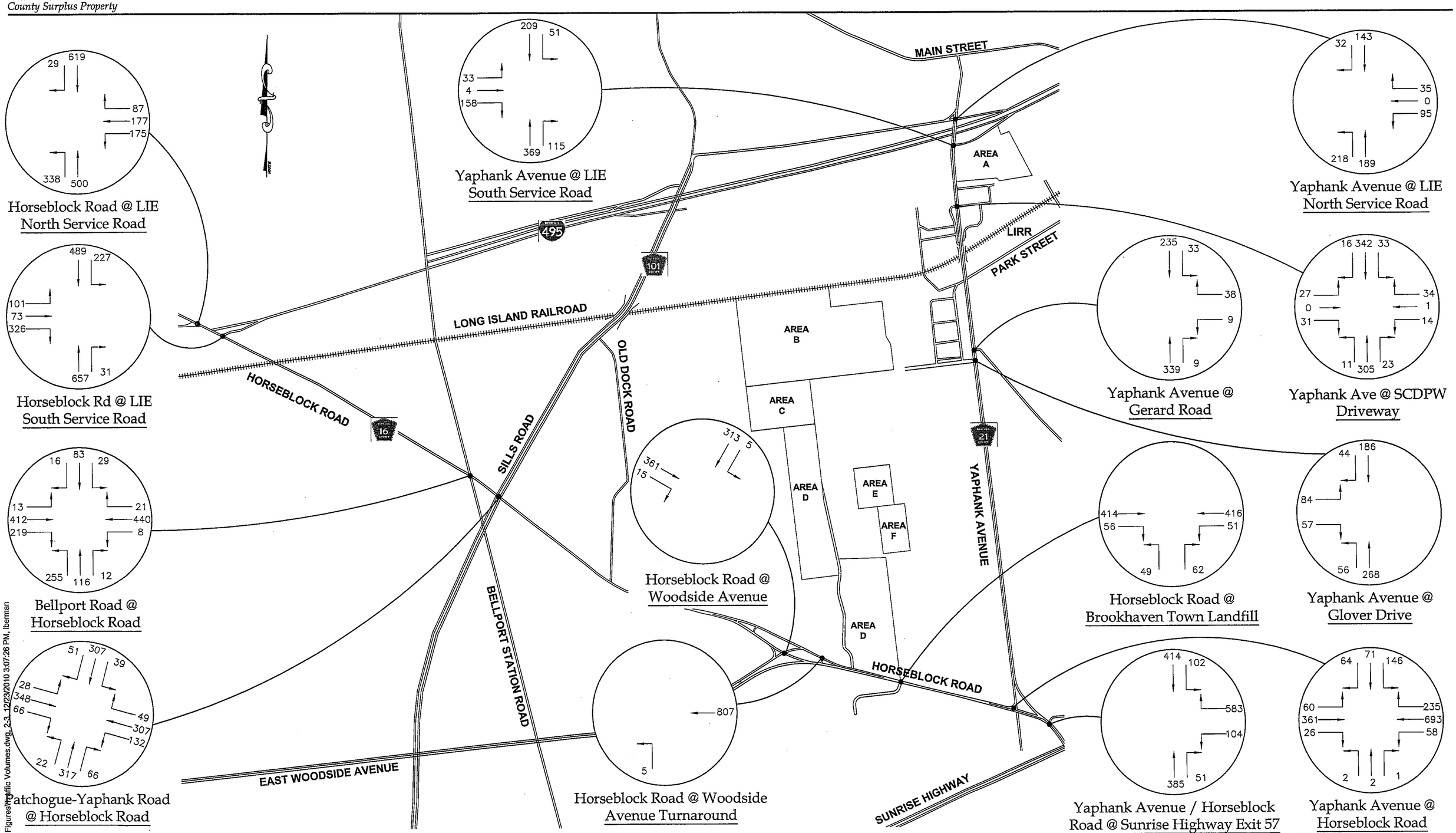

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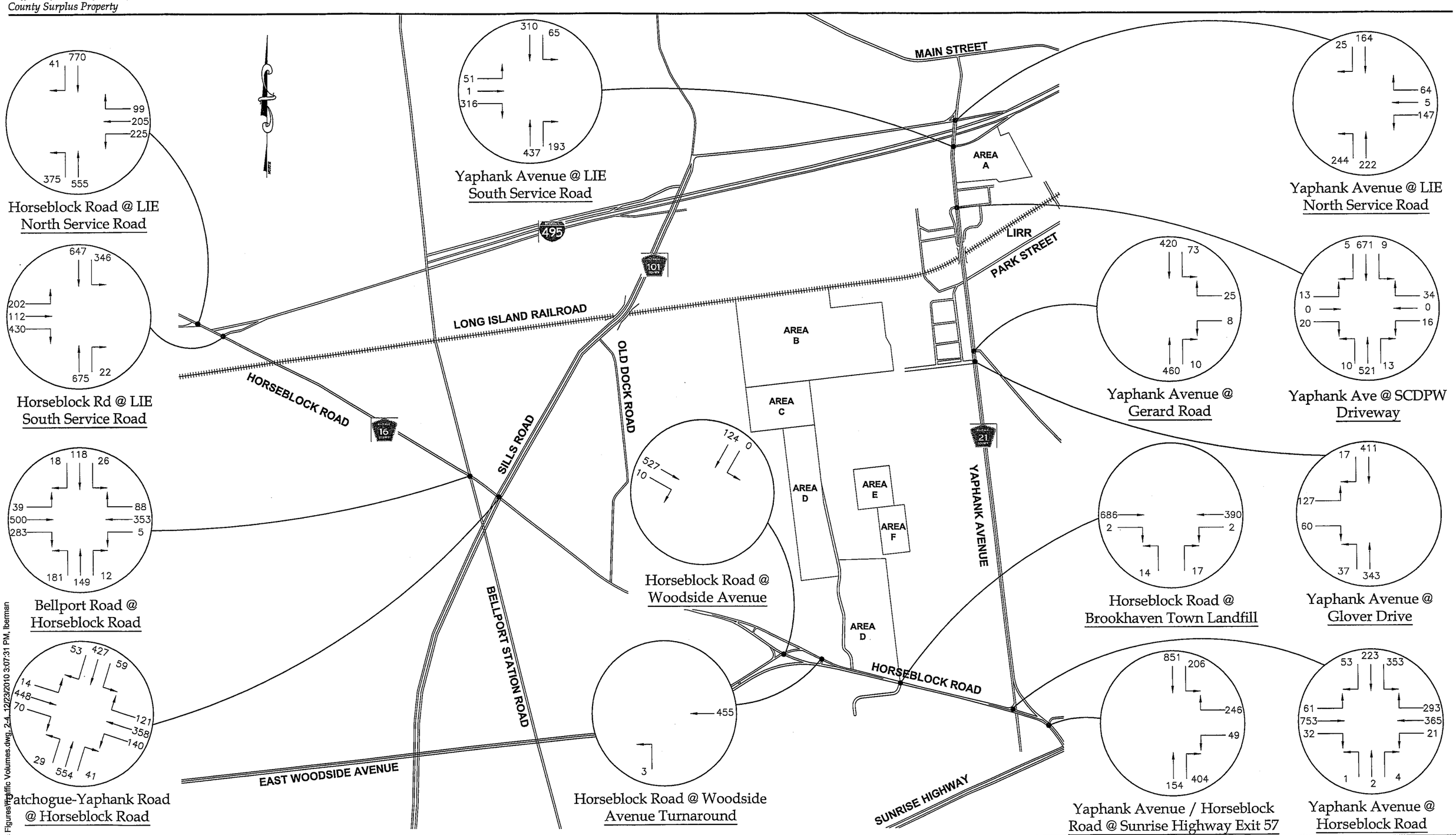
Existing Midday Peak Hour Volumes

Figure No. 2-3



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Existing PM Peak Hour Volumes

Figure No. 2-4

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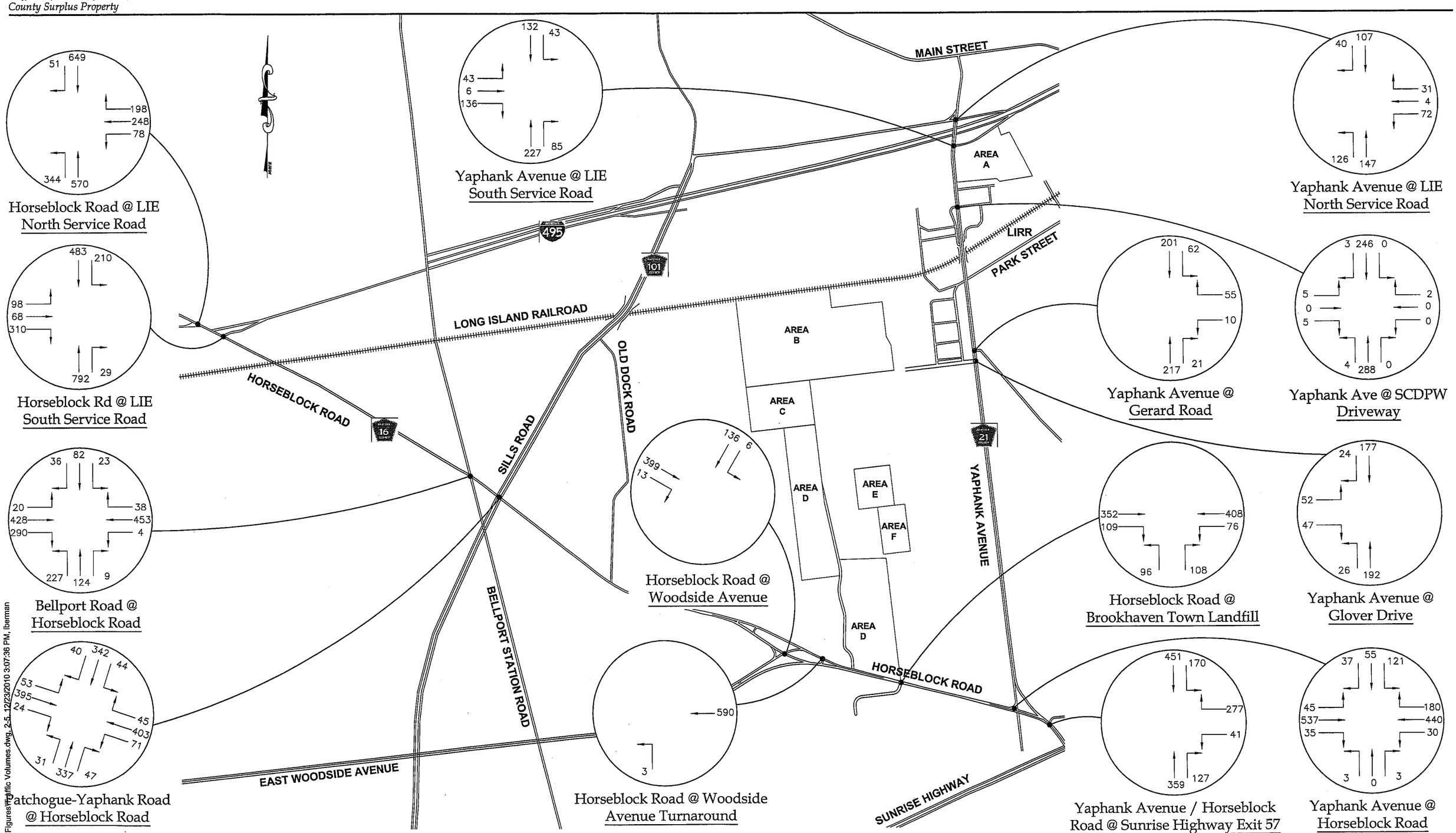

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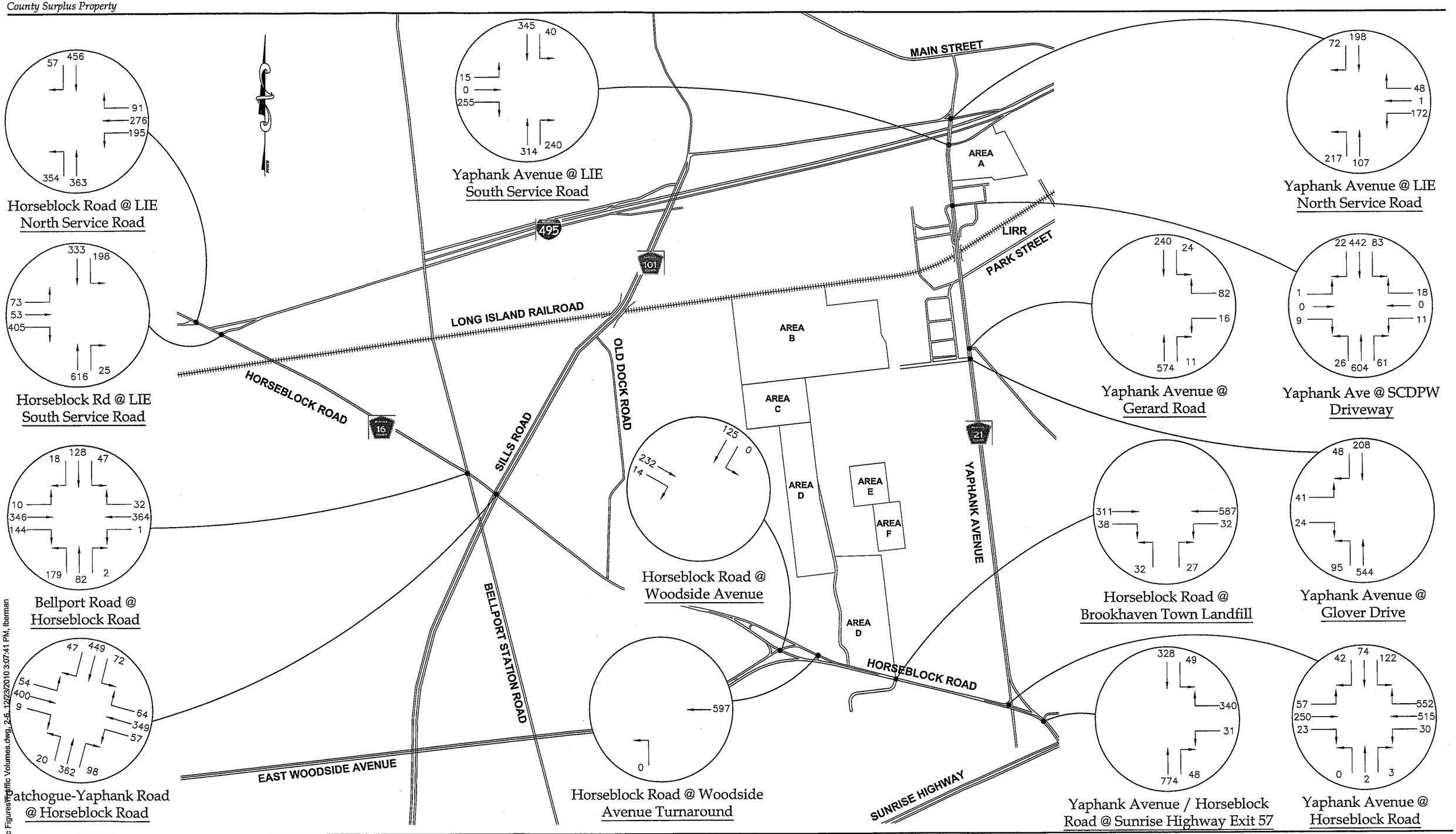
Existing Saturday Peak Hour Volumes

Figure No. 2-5



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Seasonally Adjusted AM Peak Hour Volumes

Figure No. 2-6

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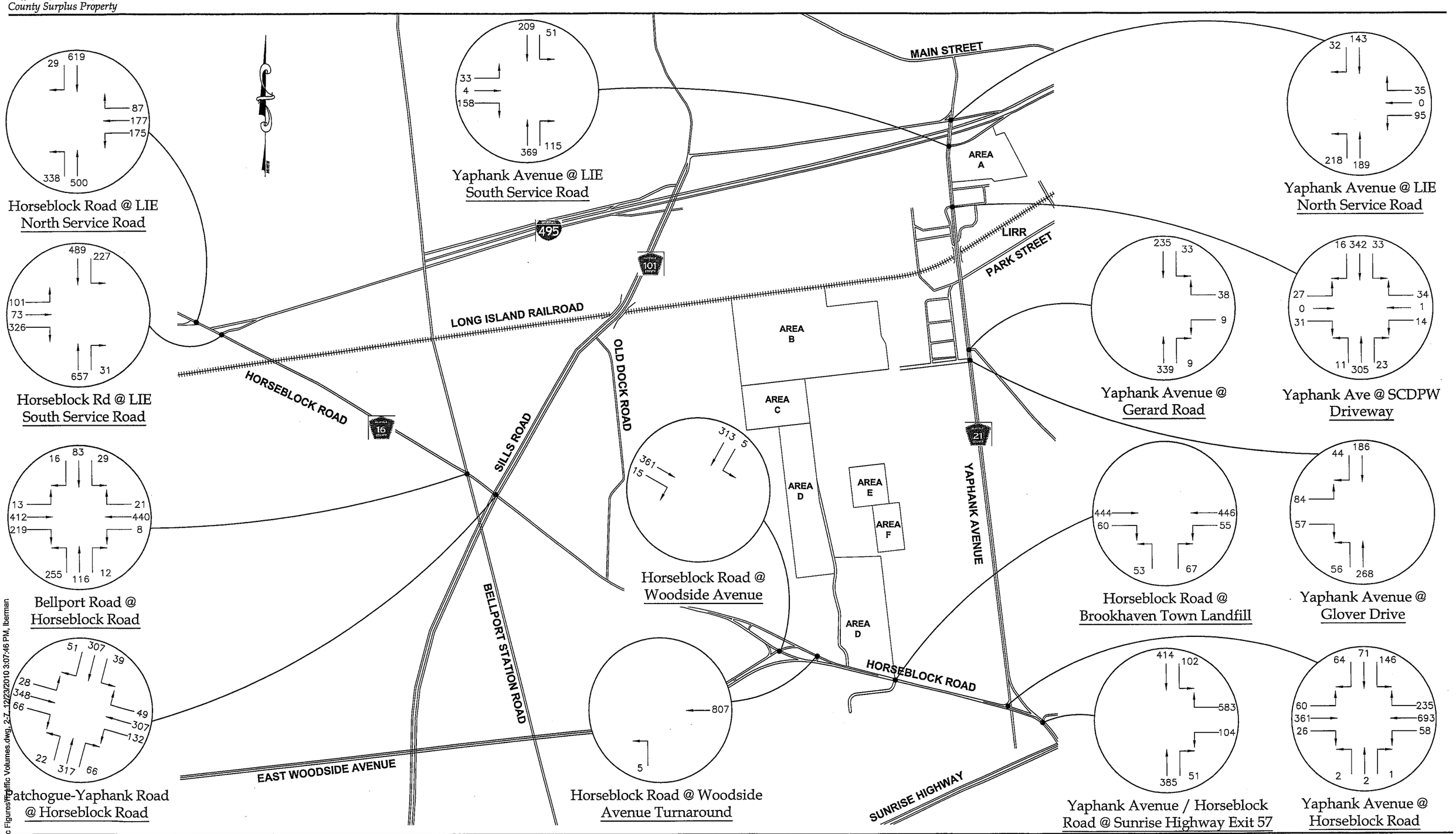

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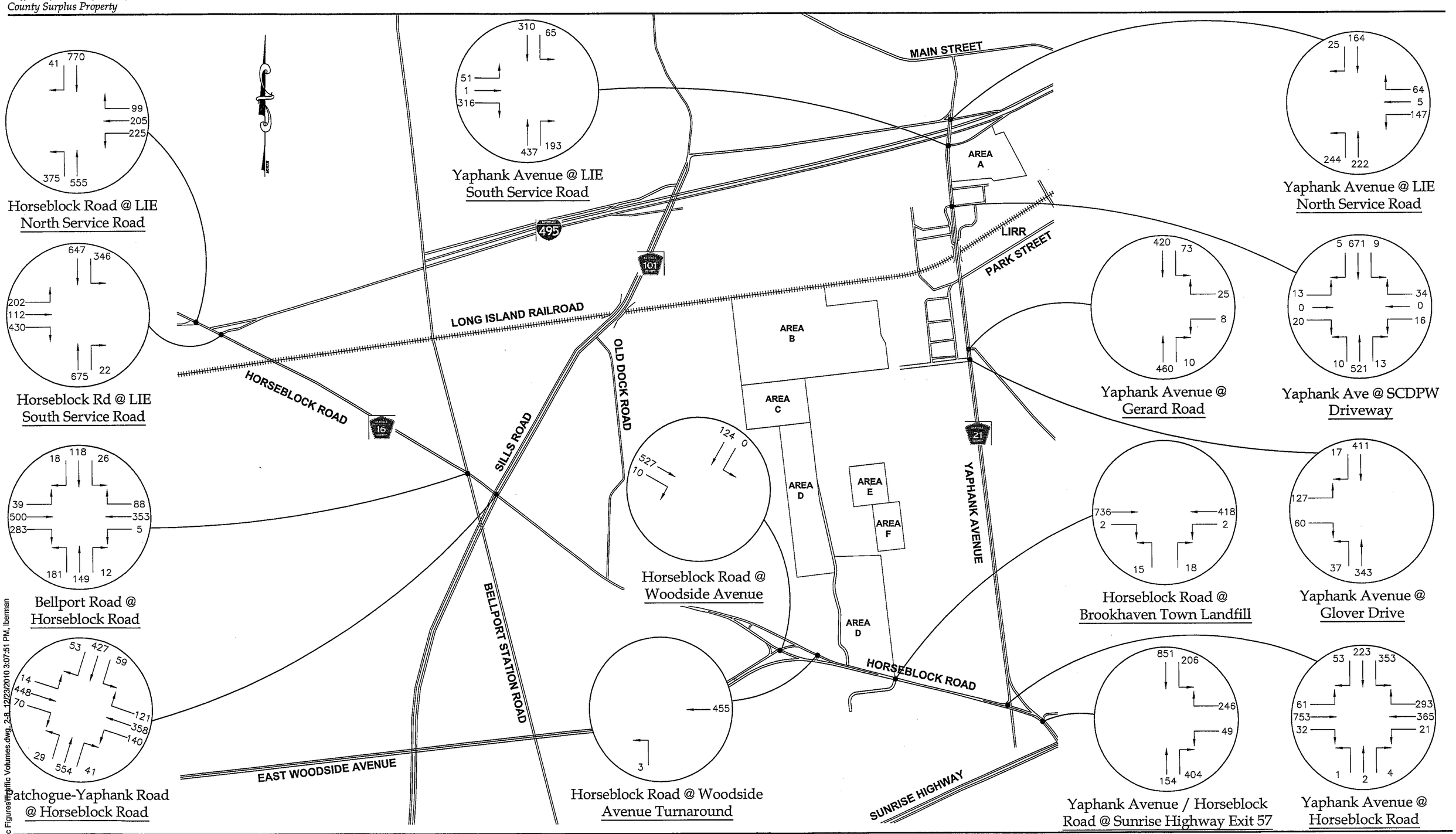
Seasonally Adjusted Midday Peak Hour Volumes

Figure No. 2-7



Seasonally Adjusted PM Peak Hour Volumes

Figure No. 2-8

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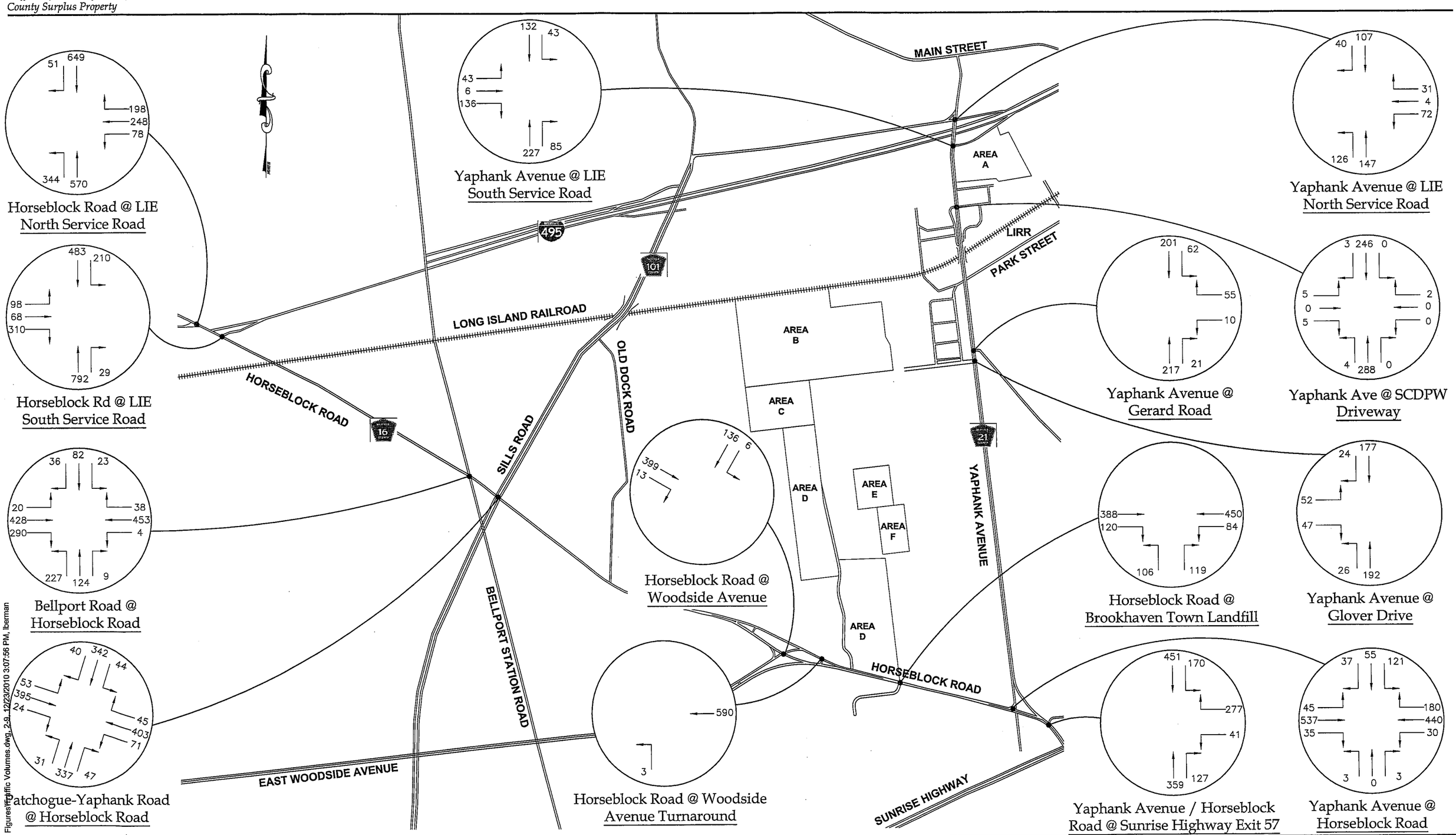

Seasonally Adjusted Saturday Peak Hour Volumes

Figure No. 2-9

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3. Future Conditions Without the Project – The No Build Scenario

Traffic conditions near the site will change even if the proposed project is not constructed. The future "No Build" condition comes about from the following two types of changes:

- **Ambient growth** from general population increases and minor development in the area.
- **Other planned developments** close to the site with the potential to affect traffic patterns at the study intersections in this report, due to generated trips and/or required mitigation and physical improvements.

3.1 Ambient Growth

According to the NYSDOT, the annual ambient growth rate in this part of Suffolk County is 2.04% per year. Applying the factor for fifteen years yields a 35.4% change in baseline volumes, and projects the traffic volumes to the year 2025 to create the "Ambient No Build" scenario.

3.2 Other Planned Developments

The term "other planned developments" refers to projects that are planned in the general surrounding area and are currently under review by the Town of Brookhaven. These projects may eventually generate traffic through one or more of the key intersections within the scope of this report, and/or they involve physical improvements at one or more key intersections, but their effects would not have been observed.

As mentioned in Section 2.8, the Rosh Industrial Park development is expected to be in operation by 2012. For the purposes of this report, this changes the geometry at the Horseblock Road – Brookhaven Town Landfill study intersection. The eastbound approach will be restriped to include a left turn lane; the westbound approach will be widened to include a right turn lane; the northbound approach will be restriped to provide 1 left turn lane and 1 through/right turn lane; and the newly constructed southbound approach will be constructed to provide 1 left turn lane and 1 through/right turn lane. The new geometry was input into the No Build and Build analyses.

In addition to the intersection modification at Horseblock Road and the Brookhaven Town Landfill intersection, there were fourteen other developments being planned in the area:

1. Starlight Properties: 45± acres of light industrial use, located west of the proposed development's Area D, along Horseblock Road, and north of its intersection with Woodbury Road. Estimated traffic generated by this other development in 2025 is shown in Figure 3-1.

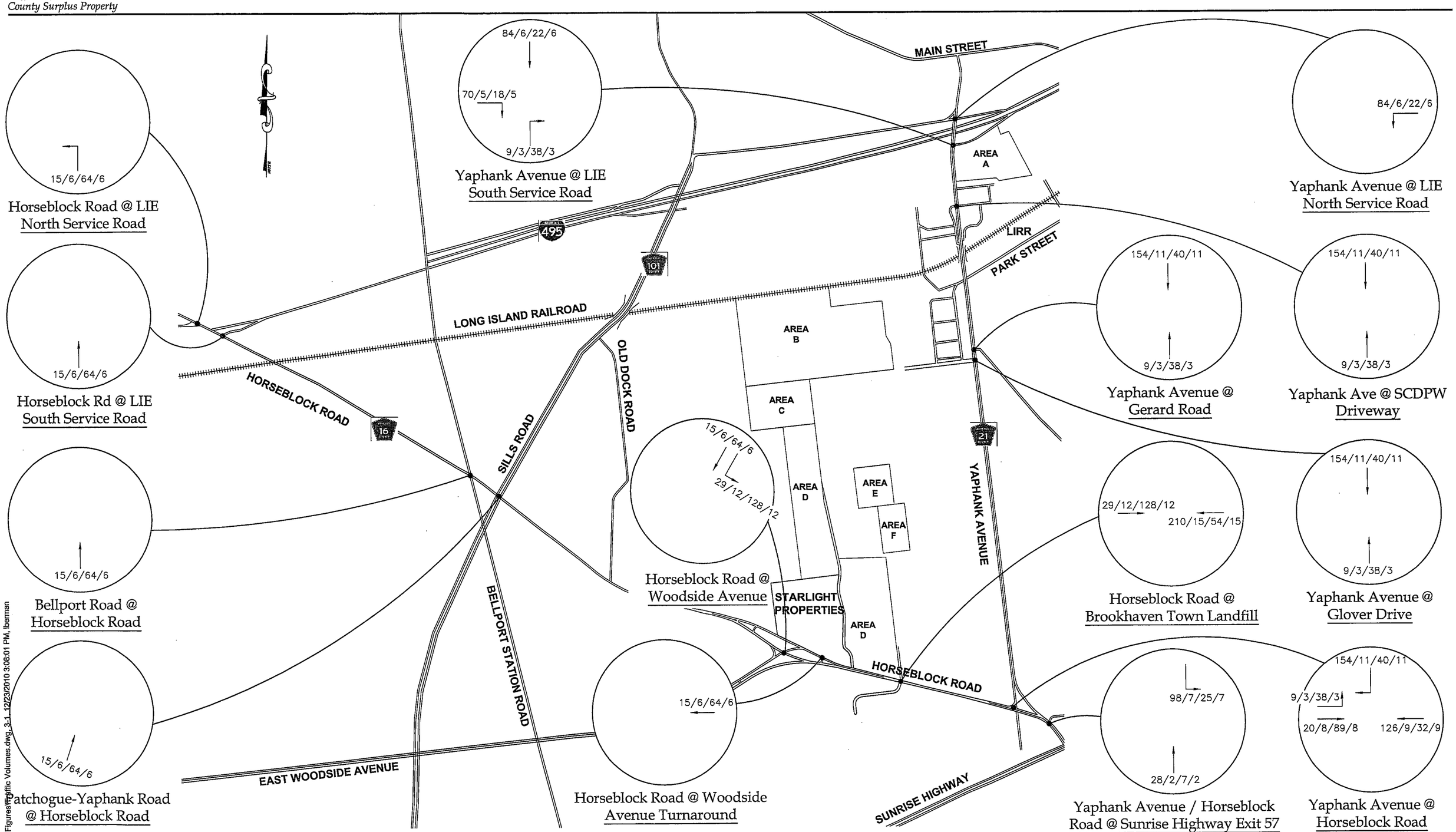
2. Pinewood Gardens: 10 housing units on a 11± acre parcel, located southeast of the intersection of Yaphank Avenue and the LIE South Service Road. Estimated traffic generated by this other development in 2025 is shown in Figure 3-2.
3. Silver Glen and Silver Corporate Park: 310 senior housing units on a 117± acre parcel and 59± acres developed as an industrial/commercial park. The proposed development will be located north of the LIE, west of Patchogue-Yaphank Road/Sills Road. Estimated traffic generated by this other development in 2025 is shown in Figure 3-3.
4. Enchanted Forest: 9 housing units on a 49± acre parcel, located to the northeast of Patchogue-Yaphank Road and the LIE intersection. Estimated traffic generated by this other development in 2025 is shown in Figure 3-4.
5. Romeo Estates: 23 housing units on a 27± acre parcel, located to the west of Yaphank Avenue, and north of Horseblock Road. Estimated traffic generated by this other development in 2025 is shown in Figure 3-5.
6. Whispering Hills: 32 one family units on a 80± acre parcel, located north of the East Main Street – North Manor road intersection. Estimated traffic generated by this other development in 2025 is shown in Figure 3-6.
7. Windwood Oaks at Yaphank: 12 housing units on a 15± acre parcel, located southwest of the Park Street-Crescent Street intersection. Estimated traffic generated by this other development in 2025 is shown in Figure 3-7.
8. Yaphank Avenue Corporate Center: 115,750 square feet of general office uses on an 11± acre parcel, located on the southwest corner of Yaphank Avenue and Southview Court. Estimated traffic generated by this other development in 2025 is shown in Figure 3-8.
9. Rosh Industrial Park: 644,690 square feet of industrial park uses on a 43± acre parcel adjacent to the proposed development. The industrial park will share access with the proposed development's site driveway onto Horseblock Road (CR16). The January 2008 traffic study by Michael Maris Associates, Inc. indicates that this project would be complete by 2012. No traffic mitigation was recommended by the TIS for this development. Estimated traffic generated by this other development in 2025 is shown in Figure 3-9.
10. Meadows at the Hamlet: 60 senior housing units on a 10± acre parcel, located west of Yaphank Avenue and north of Montauk Highway. Estimated traffic generated by this other development in 2025 is shown in Figure 3-10.

11. Meadows at Yaphank PDD: 1,032,500 square feet of hotel, retail, and office/flex space, and 850 residential units are proposed on a 334± acre site. The proposed development is located on the northwest corner of William Floyd Parkway and the LIE. Estimated traffic generated by this other development in 2025 is shown in Figure 3-11.
12. Riegel Warehouse, LLC: 73,825 square feet of warehouse use on a 25± acre parcel, located in the southeast parcel of the Long Island Avenue/Barlett Avenue-Bellport Road intersection. Estimated traffic generated by this other development in 2025 is shown in Figure 3-12.
13. Suffolk Federal Credit Union: 40,030 square feet of general office use on a 8± acre parcel, located in the southeast corner of Patchogue-Yaphank Road and State Street. Estimated traffic generated by this other development in 2025 is shown in Figure 3-13.
14. Yaphank Correctional Facility Expansion: 318,000 square feet development proposed to contain 740 beds for prisoners. At the time the traffic counts were collected, construction has already begun on this development, and therefore construction vehicles arriving and leaving the site were included in the counts. Based on ITE trip generation estimates, the number of AM and PM peak hour trips would be 74 trips and 37 trips, respectively. Taking into consideration the removal of the construction traffic, it is believed that the ambient growth projected for the area, coupled with the low trip generation estimates will offset the construction traffic removal, and no additional traffic will be required to be added to account for this development.

The 2025 No Build traffic volumes include the projected generated trips for each of the above developments. The other-project generated traffic volumes were calculated based on the 8th Edition of the *Trip Generation* manual published by the Institute of Transportation Engineers (ITE) in 2008, and also on any published environmental documents.

Once the other project trips were calculated, they were distributed to the study intersections, based on the most direct routes to and from those projects. The total estimated traffic to be generated by these other developments in 2025 is shown in Figure 3-14. Since some of the other developments do not yet have Traffic Impact Studies and others do not include all of the study intersections in this study, trips from these other developments were distributed through the balance of the network based on existing traffic patterns.

The trips these projects would generate were added to the "Ambient No Build" volumes to determine the "Total No Build" volumes, which are illustrated in Figure 3-15 through Figure 3-18. The No Build level of service worksheets are in Appendix F.



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Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Starlight Properties

Figure No. 3-1

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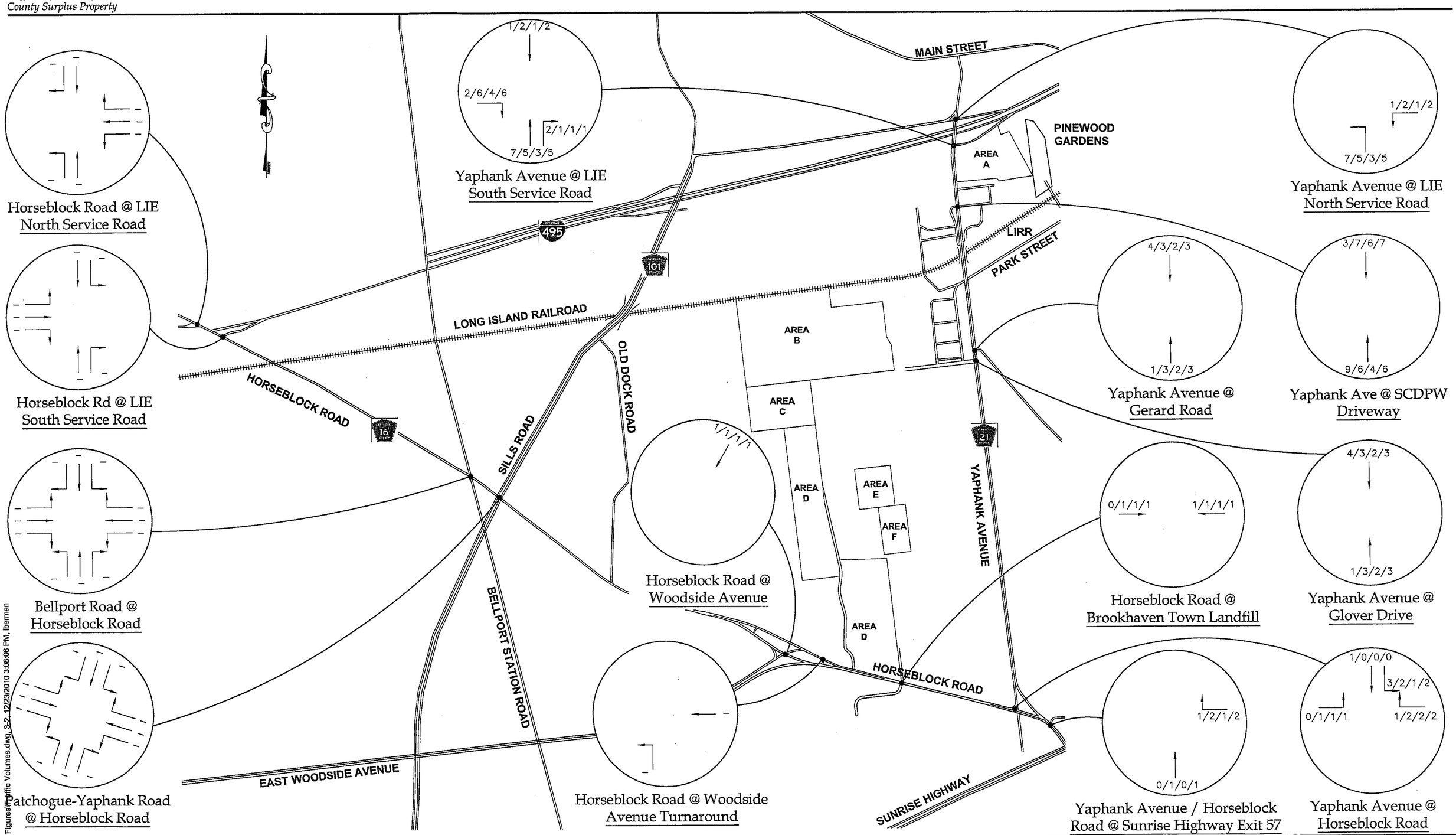

Peak Hour Other Development-Generated Traffic: Pinewood Gardens

Key: AM/Midday/PM/Saturday

Figure No. 3-2

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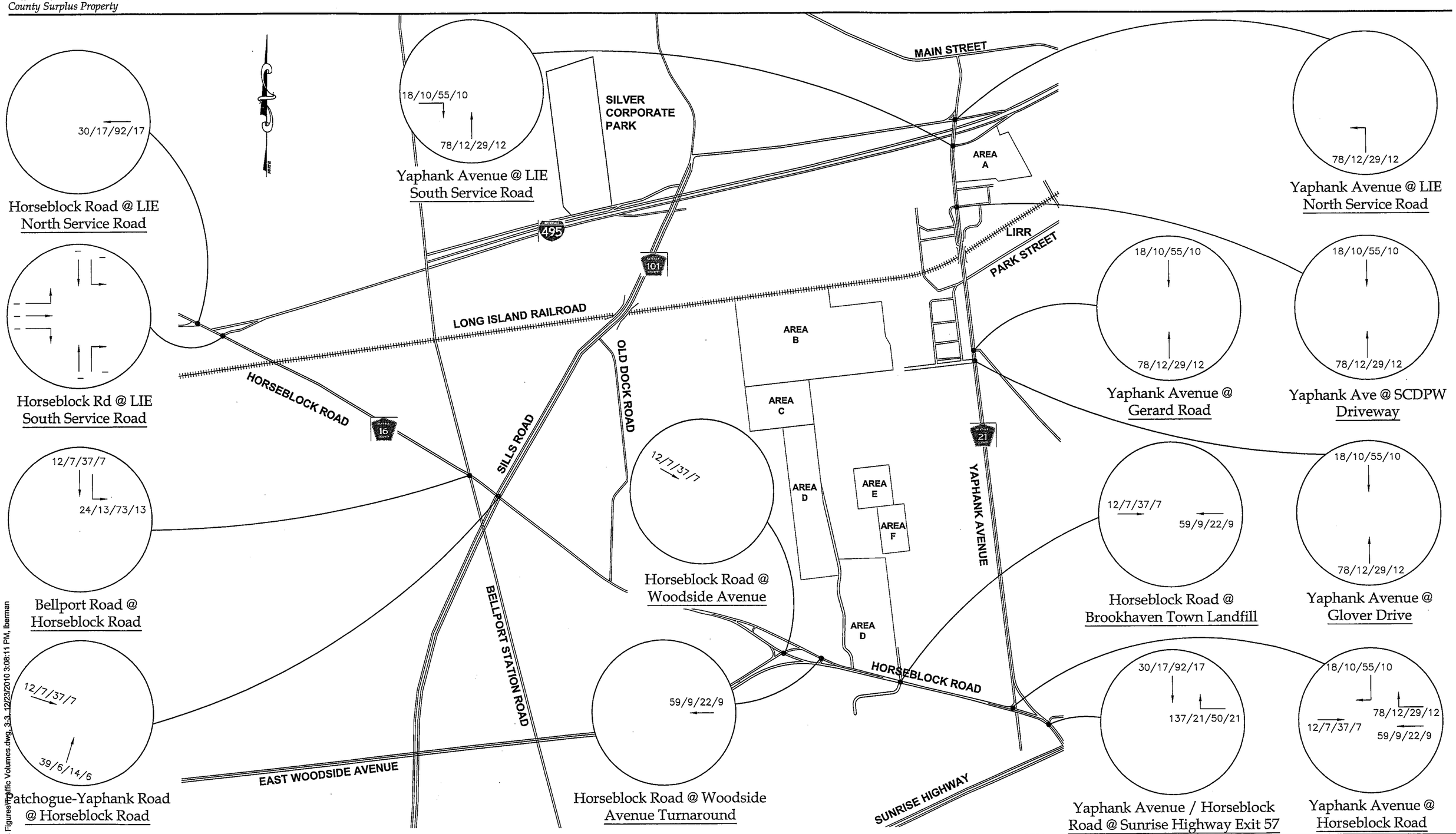

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Peak Hour Other Development-Generated Traffic: Silver Corporate Park

Figure No. 3-3

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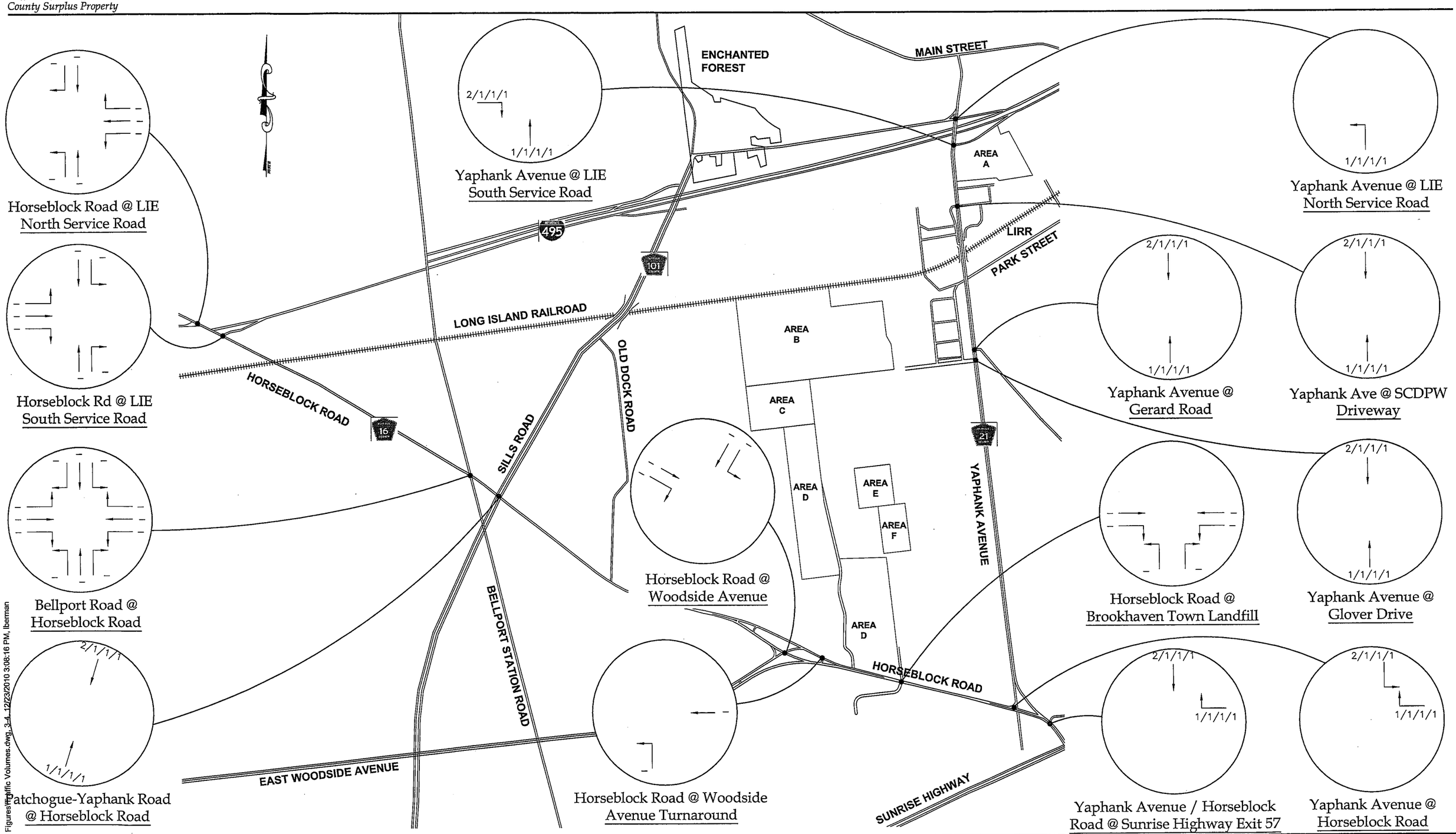

Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Enchanted Forest

Figure No. 3-4

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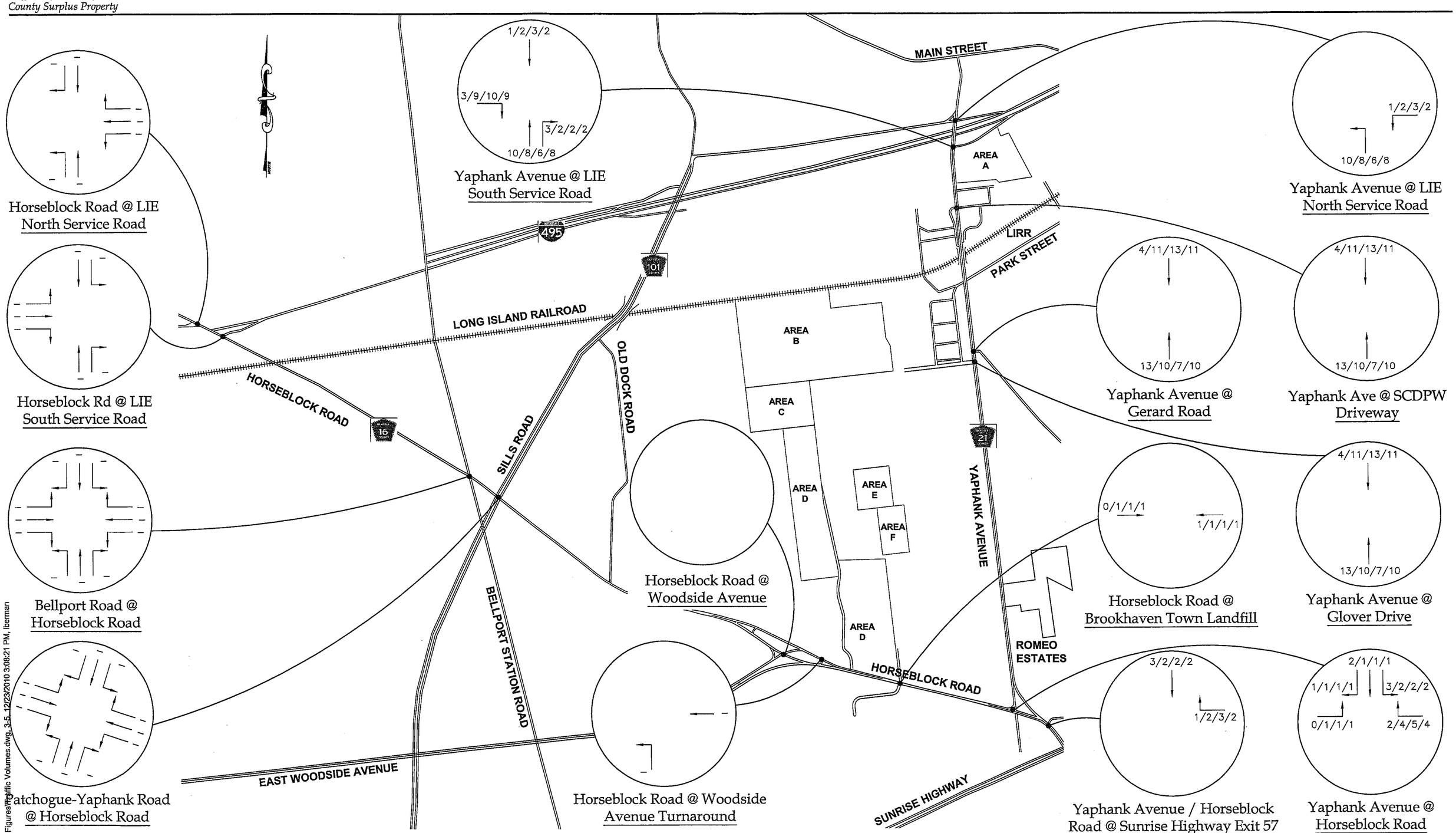

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Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Romeo Estates

Figure No. 3-5

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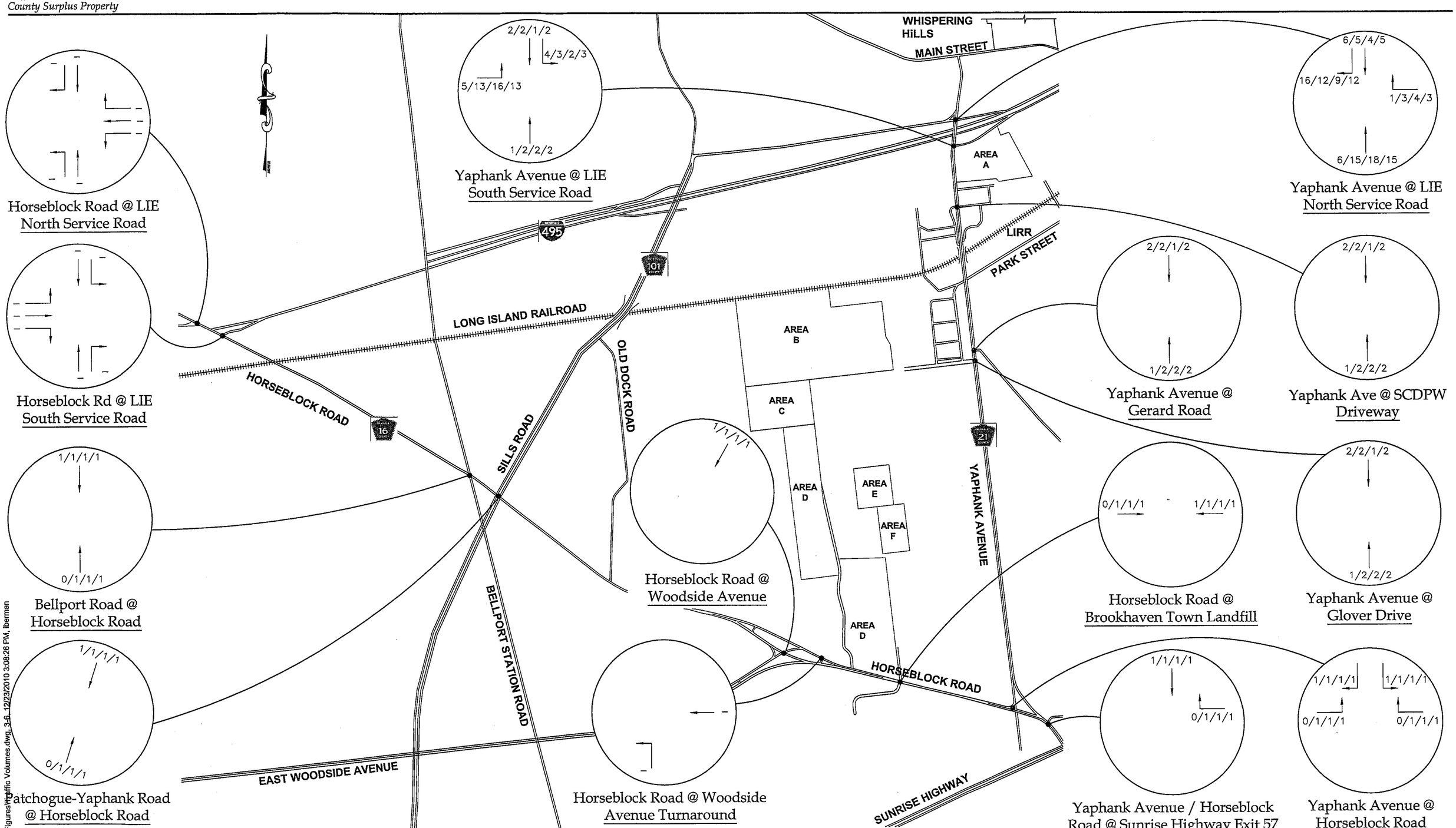

Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Whispering Hills

Figure No. 3-6

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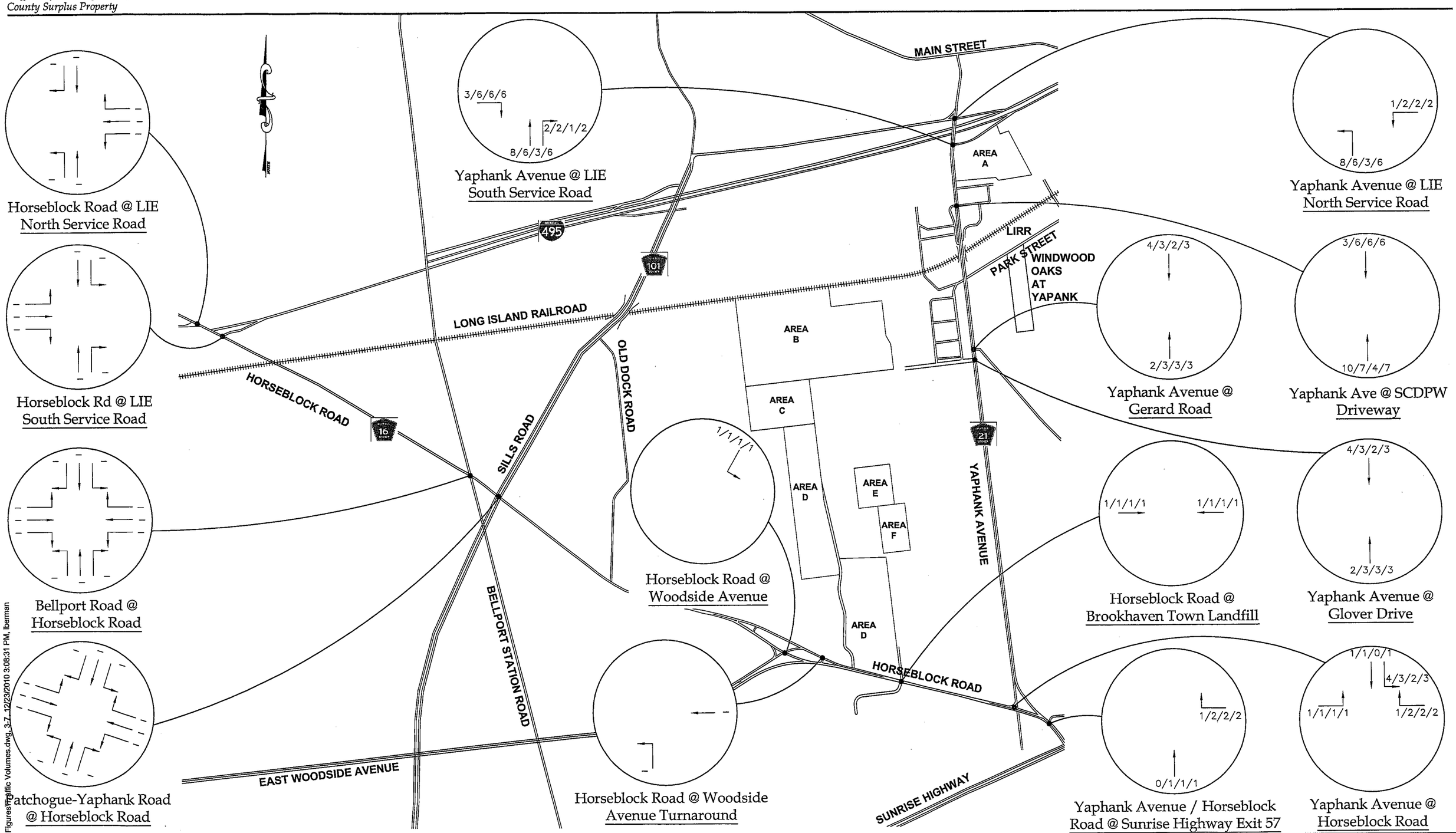

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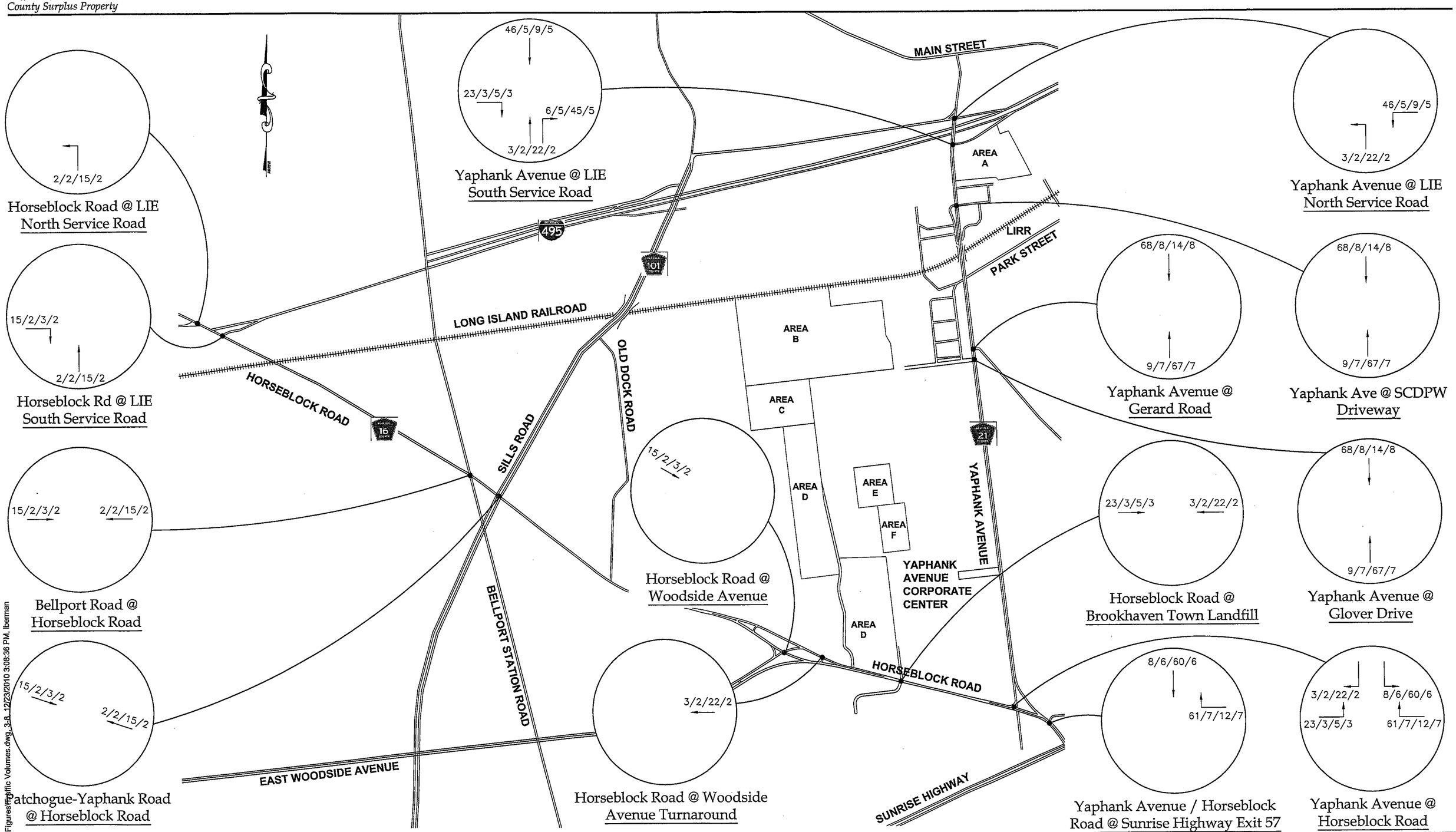
Peak Hour Other Development-Generated Traffic: Windwood Oaks at Yaphank

Key: AM/Midday/PM/Saturday

Figure No. 3-7



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Peak Hour Other Development-Generated Traffic: Yaphank Avenue Corporate Center

Key: AM/Midday/PM/Saturday

Figure No. 3-8

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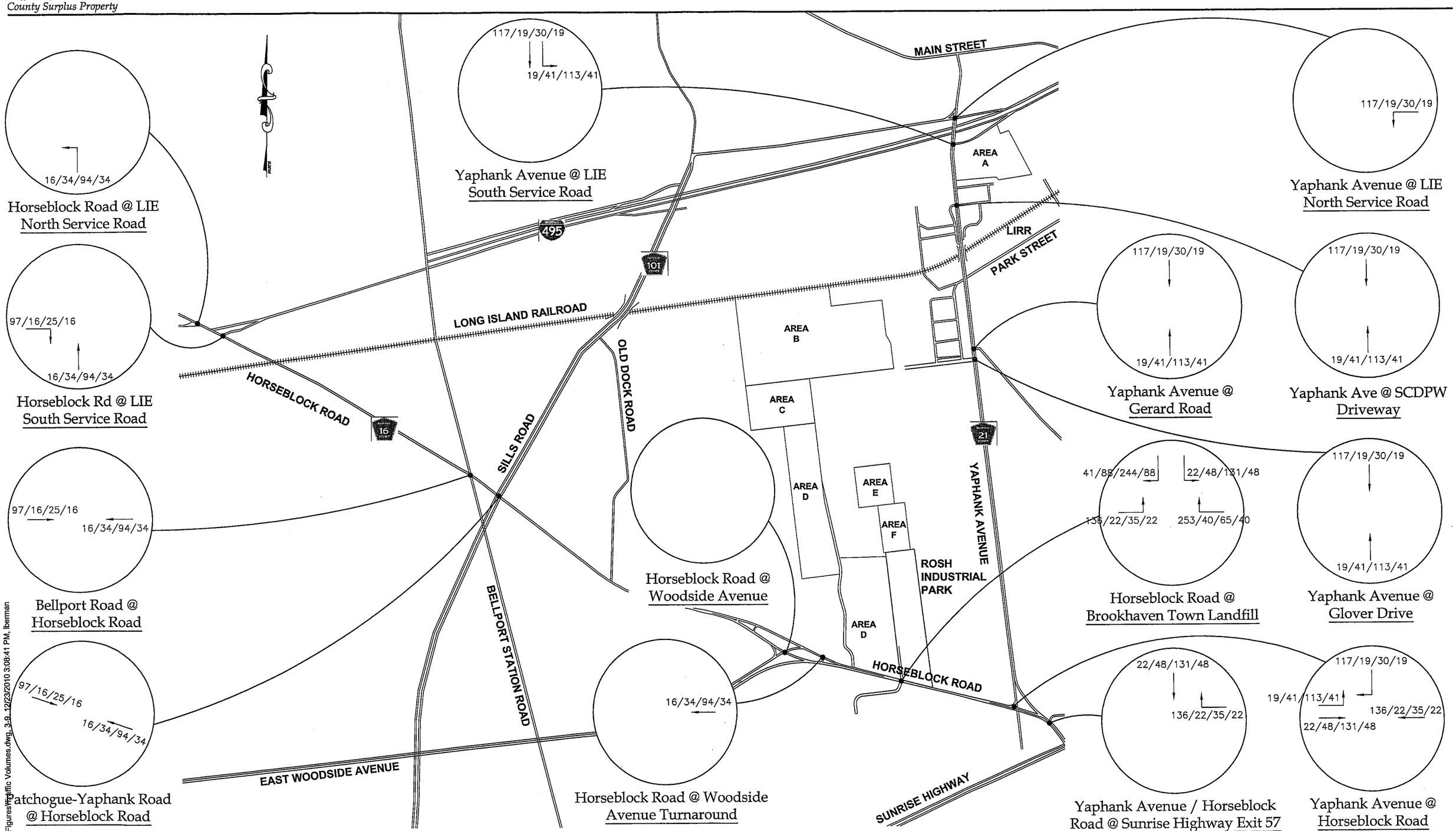

Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Rosh Industrial Park

Figure No. 3-9

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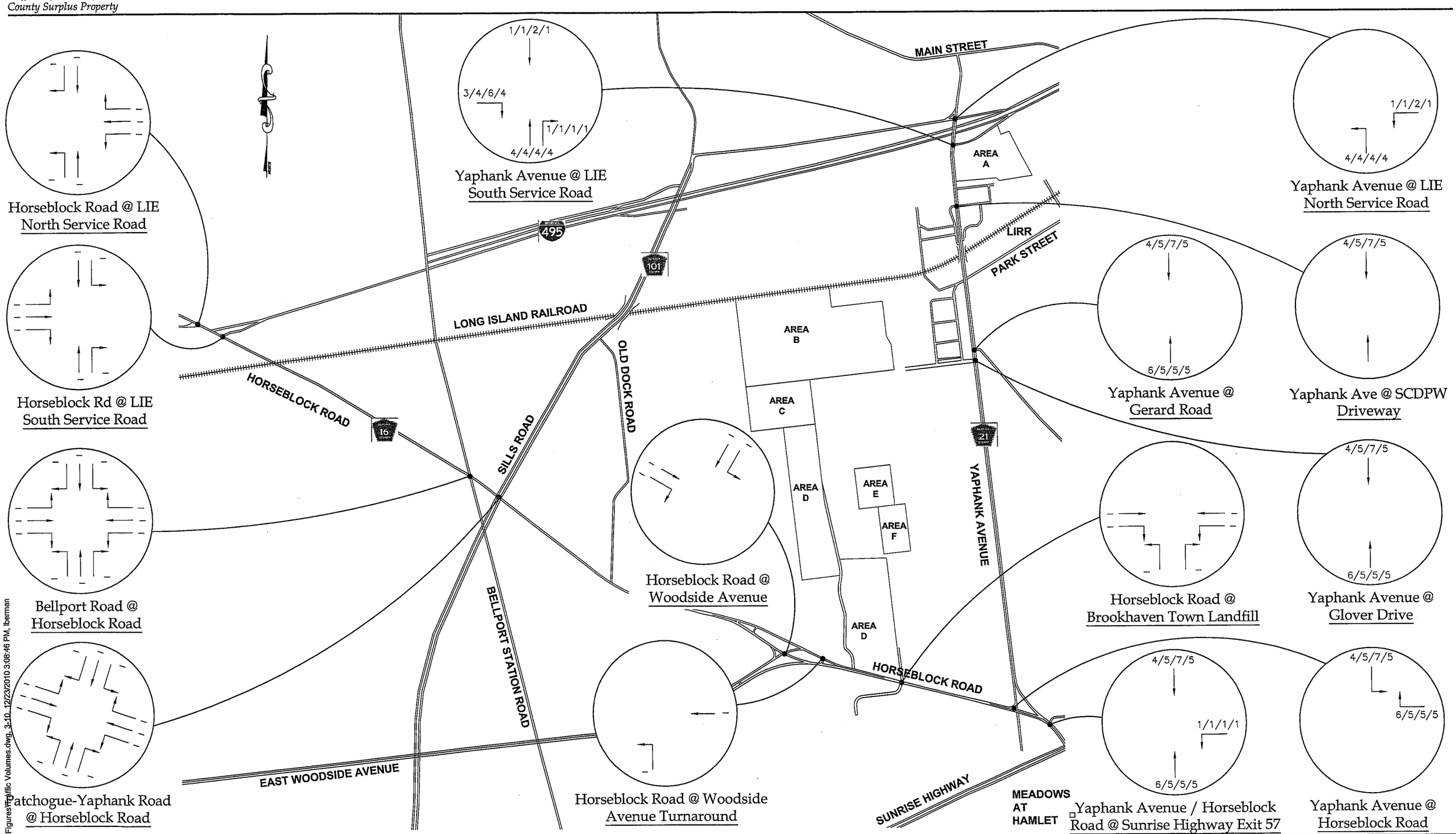

Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Meadows at Hamlet

Figure No. 3-10

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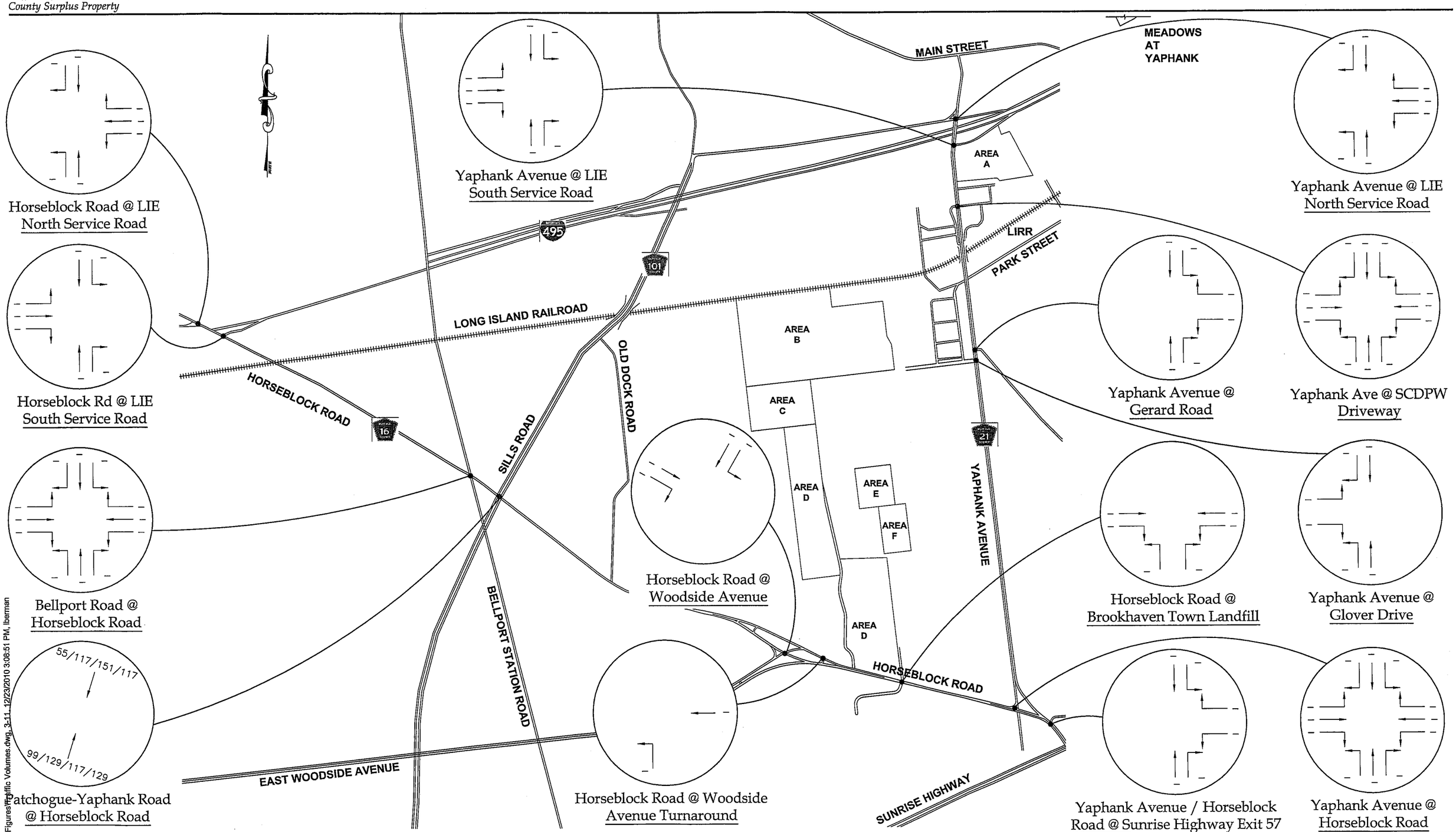

Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Meadows at Yaphank

Figure No. 3-11

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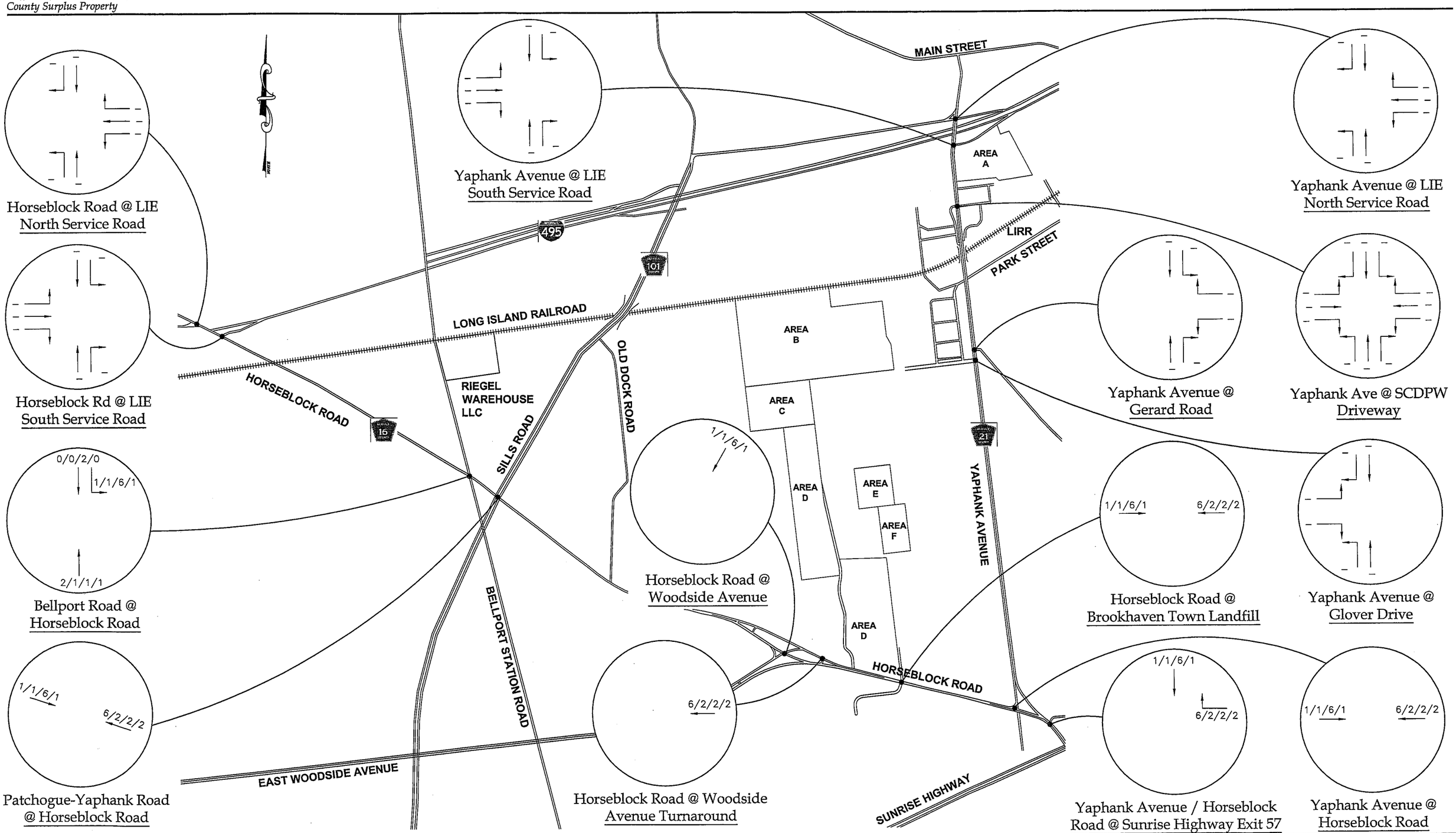

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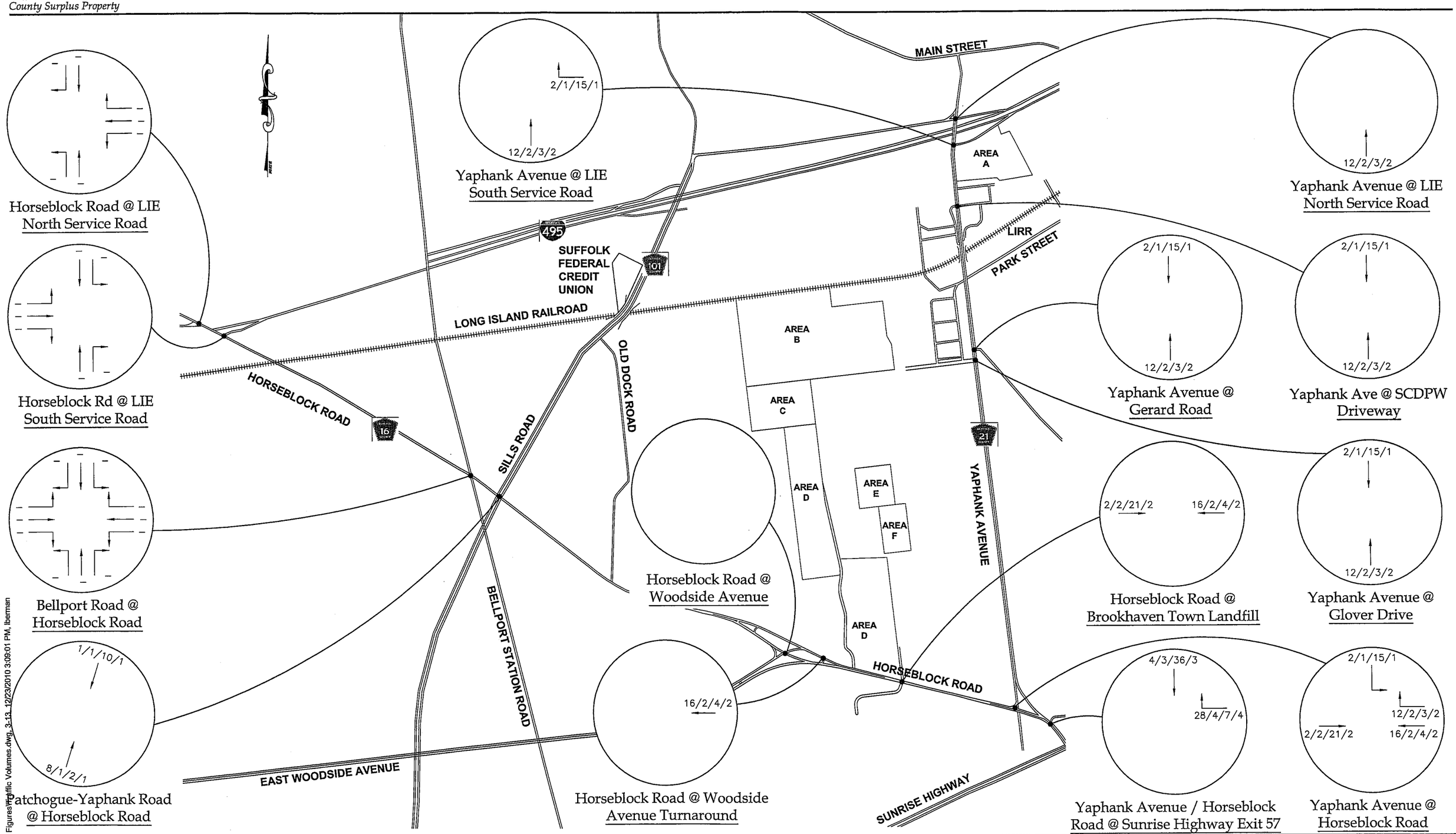
Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Riegel Warehouse LLC

Figure No. 3-12



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Peak Hour Other Development-Generated Traffic: Suffolk Federal Credut Union

Key: AM/Midday/PM/Saturday

Figure No. 3-13

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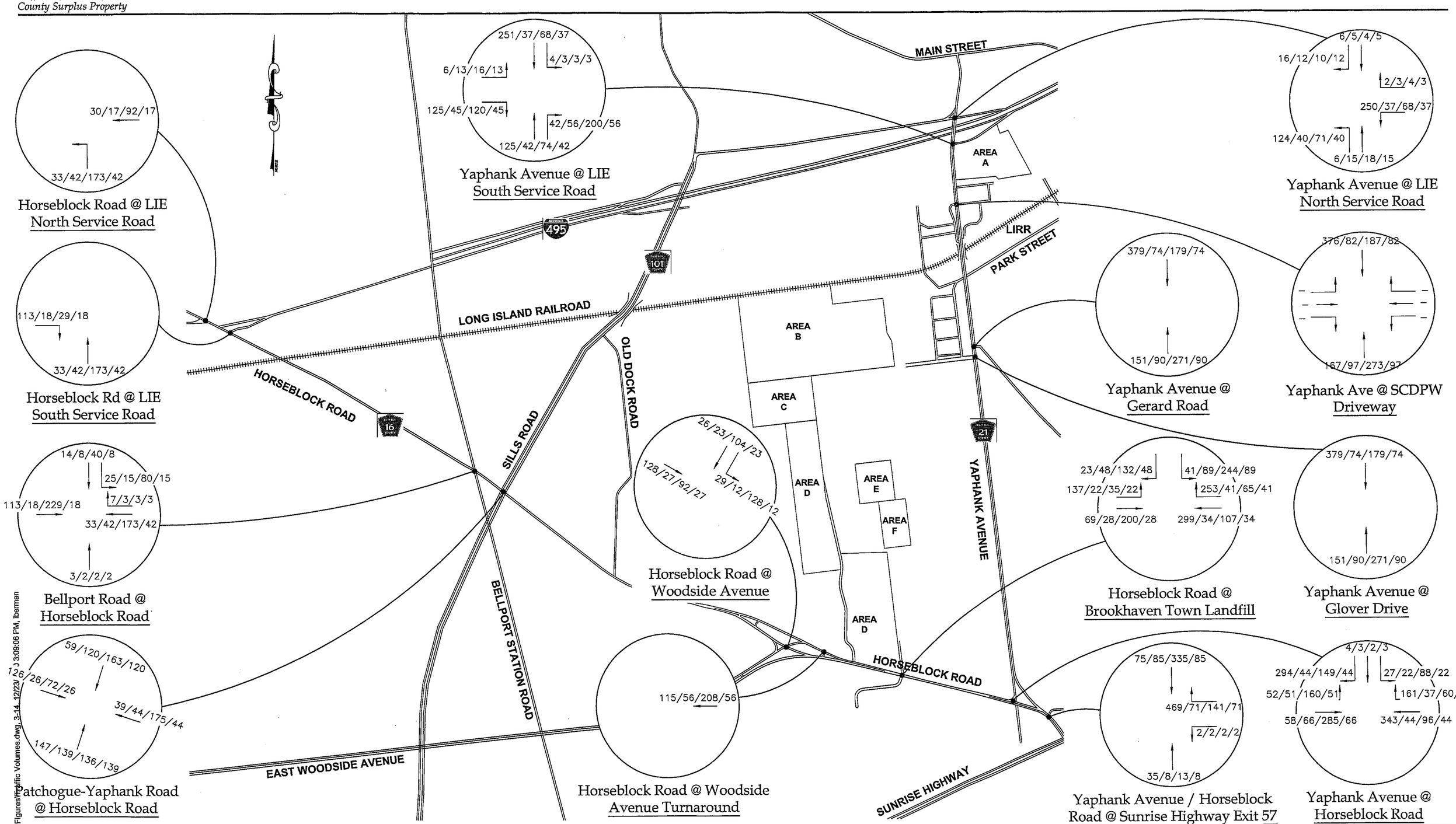

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Key: AM/Midday/PM/Saturday

Peak Hour Other Development-Generated Traffic: Total

Figure No. 3-14

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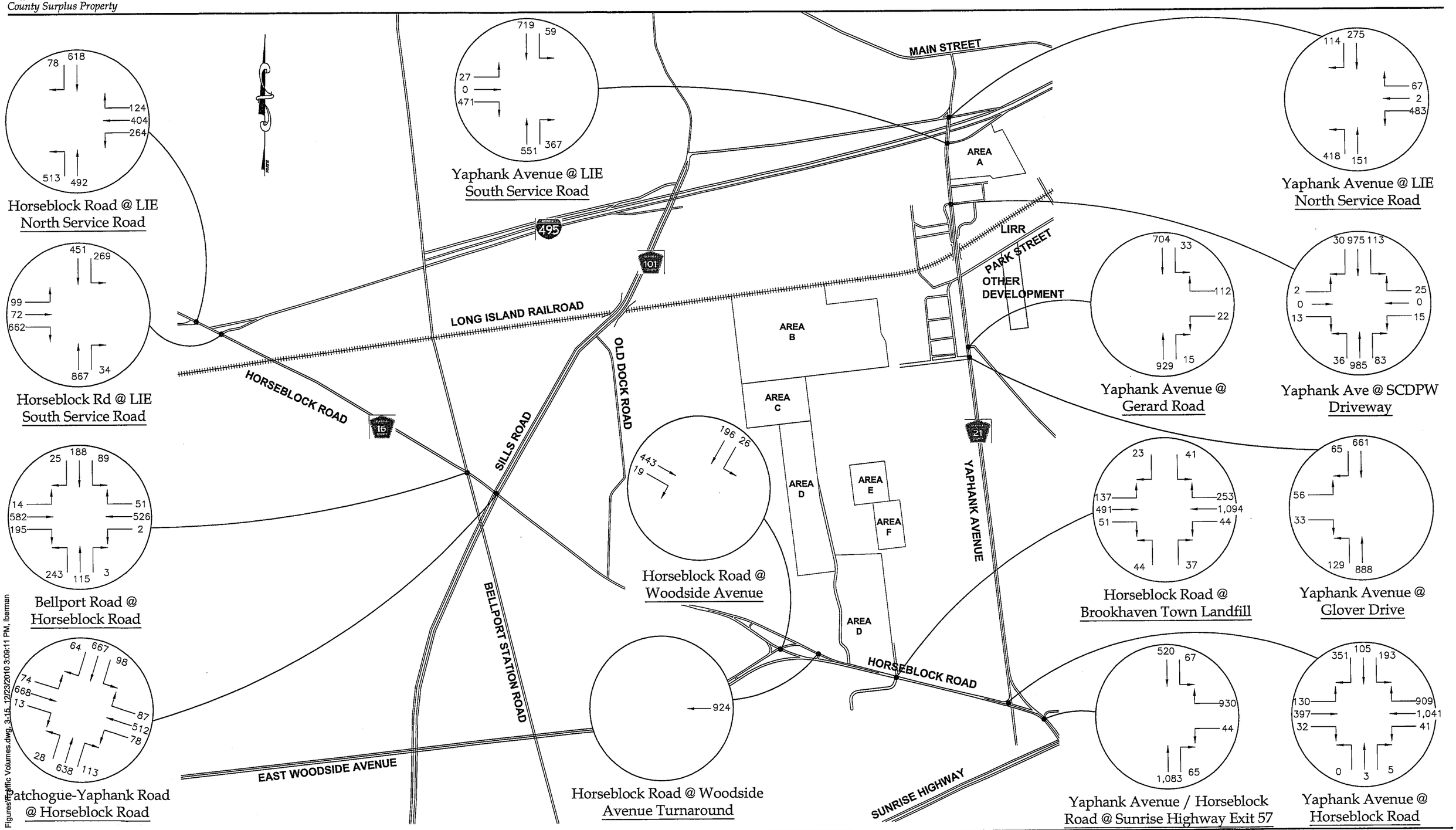

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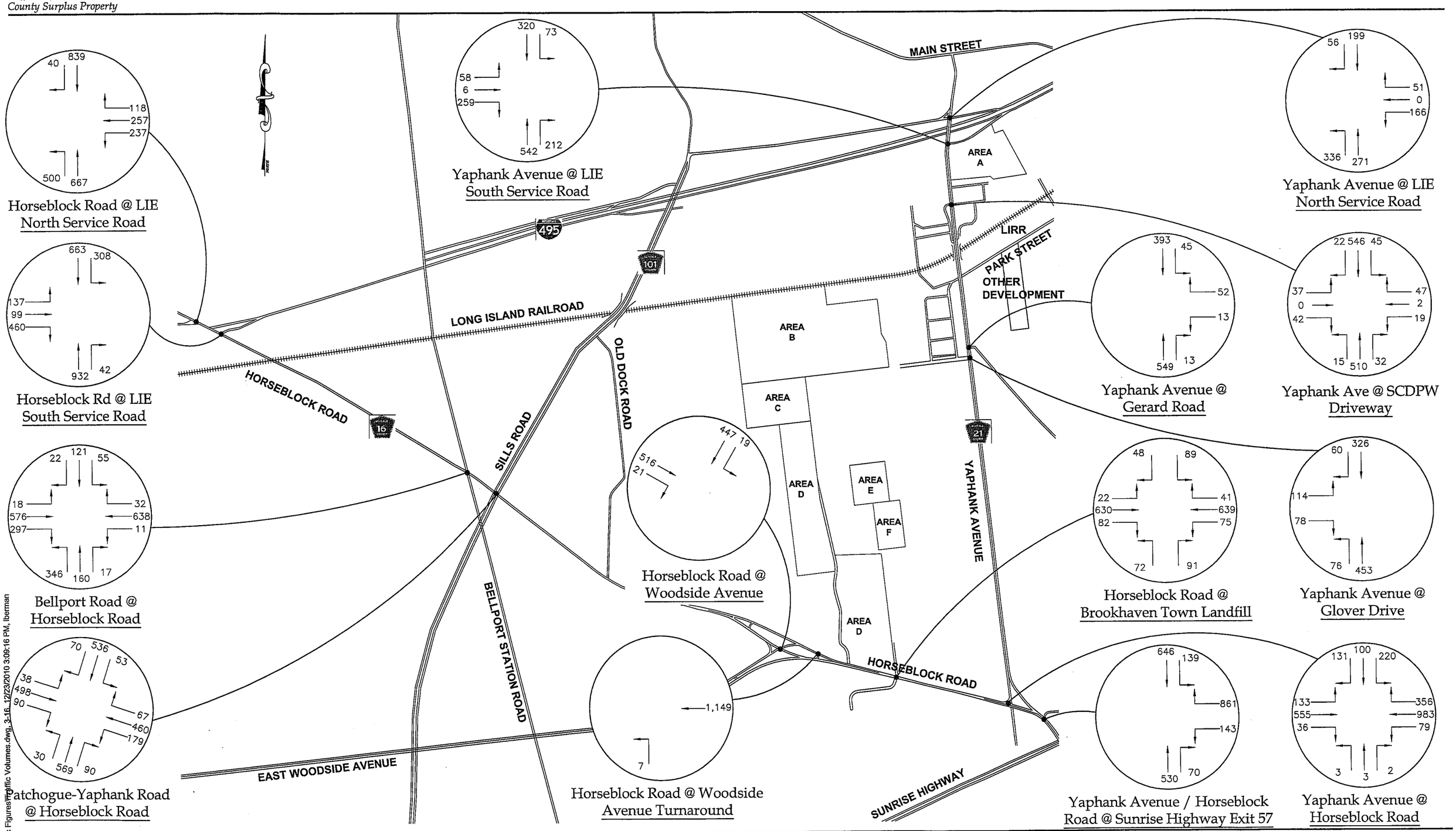
Key: AM/Midday/PM/Saturday

AM Peak Hour No Build Volumes

Figure No. 3-15



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Key: AM/Midday/PM/Saturday

Midday Peak Hour No Build Volumes

Figure No. 3-16

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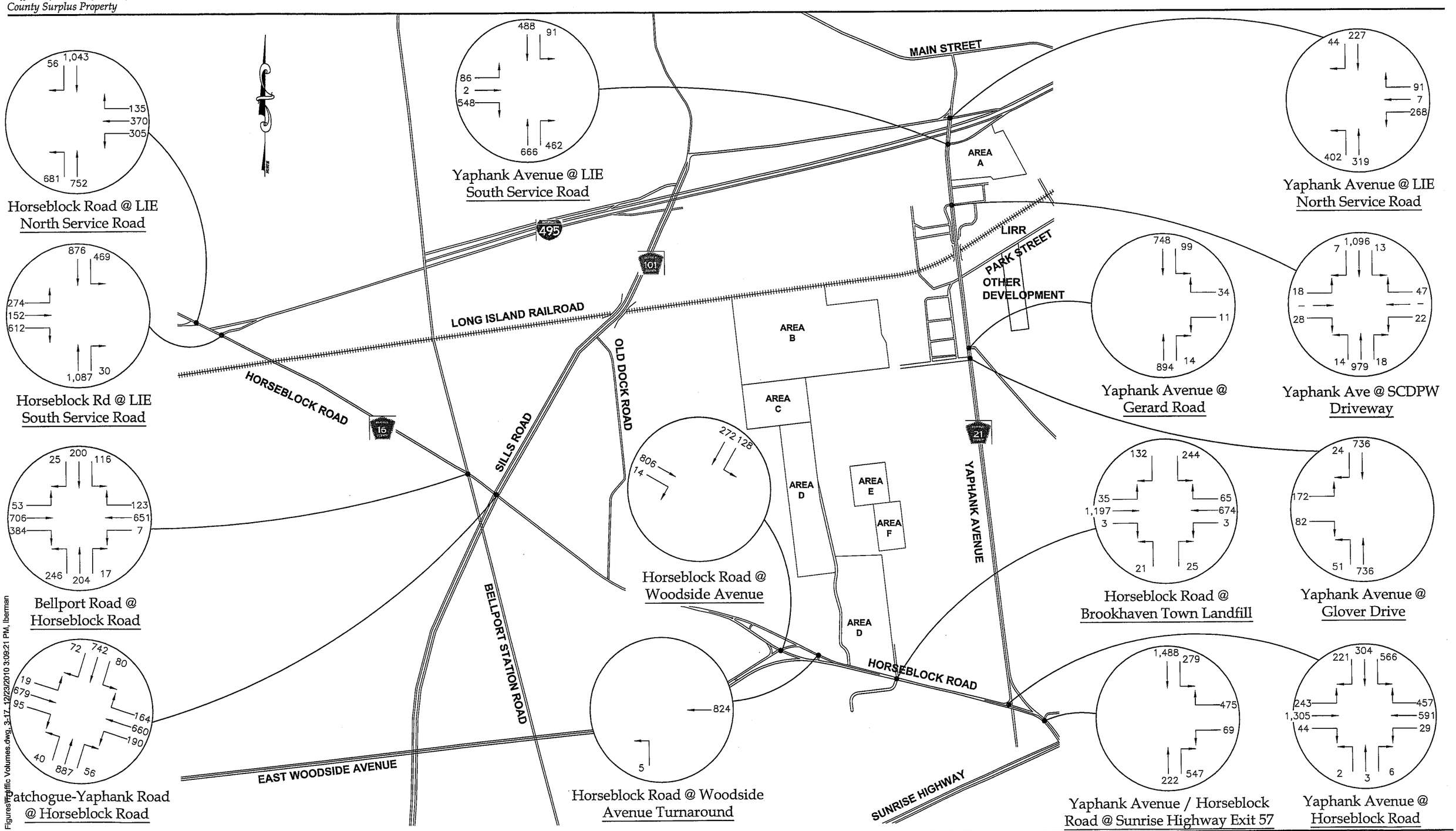

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Key: AM/Midday/PM/Saturday

PM Peak Hour No Build Volumes

Figure No. 3-17

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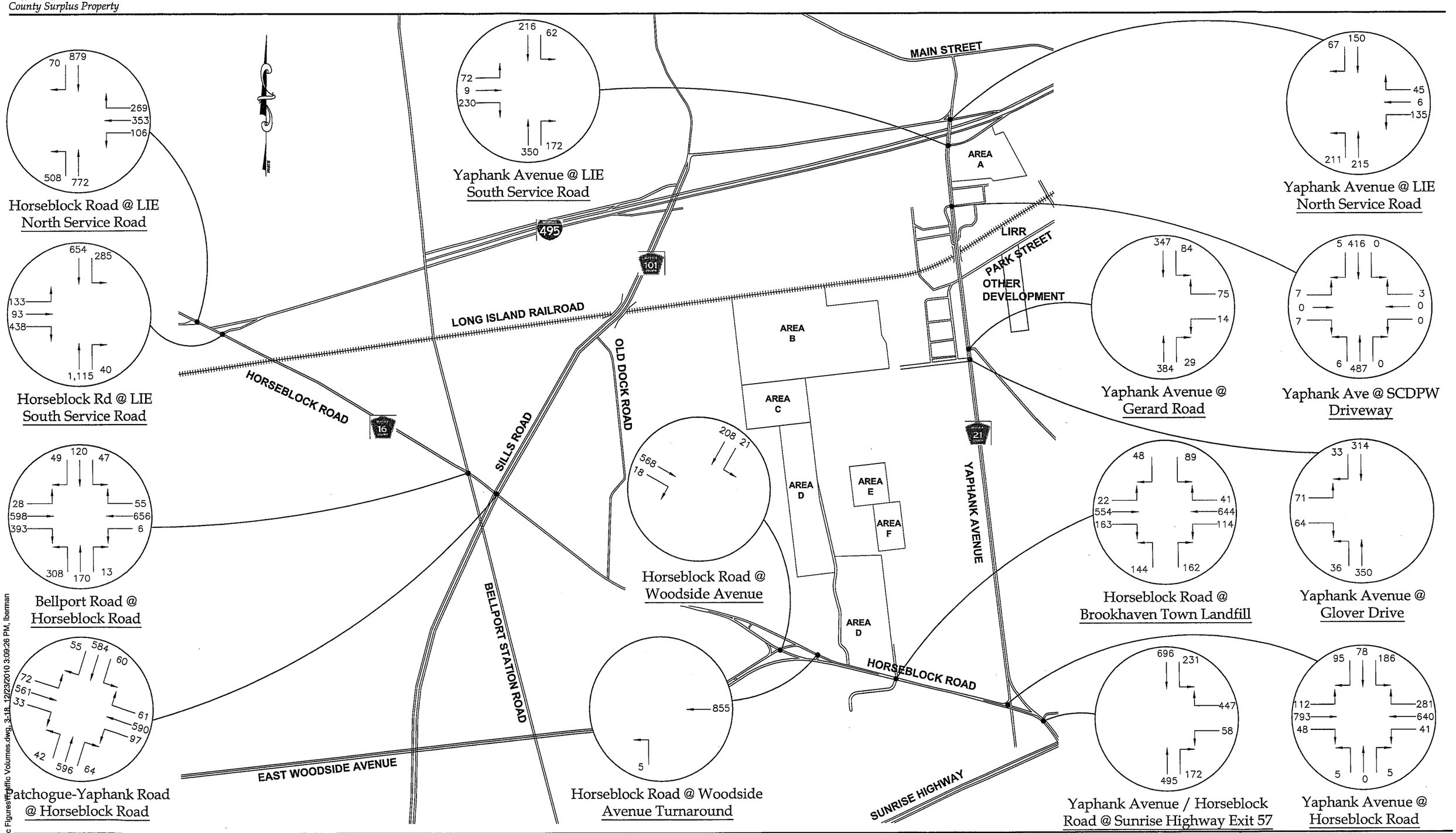

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Key: AM/Midday/PM/Saturday

Saturday Peak Hour No Build Volumes

Figure No. 3-18

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4. Future Conditions - The Mitigated No Build Scenario

Comparisons between the Existing and No Build analyses indicate that several intersection turning movements perform at LOS E/F prior to the construction of this development. This can be attributed to the 15-year ambient growth, along with the numerous other proposed developments within the area. Based on this long period, along with the lack of published information regarding the other developments' proposed traffic improvements, it is assumed that certain traffic improvements will be in place by this proposed development's 2025 build year. These traffic improvements were relatively minor modifications, restricted to utilizing the existing roadway and intersection geometry as appropriate. Any significant roadway improvements, such as roadway widening or realignments, were not considered to provide a base condition that provides the best LOS increase without any significant investment. These intersection improvements aimed to achieve a respectable LOS D for an intersection's turning movements. However, if LOS D is not feasible without any significant improvements, traffic improvements to improve the intersection's overall performance were still recommended.

The following list of traffic improvements are recommended to be in place prior to construction of the proposed development:

1. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
- Minor signal retiming to redistribute green time more efficiently between phases in the PM peak period

2. Yaphank Avenue at Sunrise Highway Exit 57
- Install a traffic signal at this location, coordinated with the adjacent signal at Yaphank Avenue and Horseblock Road (CR 16).

3. Horseblock Road (CR 16) at Brookhaven Town Landfill
- Minor signal retiming to redistribute green time more efficiently between phases in the AM peak period

4. Patchogue-Yaphank Road (CR 101) at Horseblock Road (CR 16)
- Minor signal retiming to redistribute green time more efficiently between phases in the AM, Midday, and PM peak periods

5. Horseblock Road at Bellport Station Road
- Minor signal retiming to redistribute green time more efficiently between phases in the AM peak period

6. LIE North Service Road and Horseblock Road
- Introduce a northbound left protected-permitted signal phase and readjust the signal timing for each peak period.

These traffic improvements were input into the Mitigated No Build and Build analyses. The Mitigated No Build level of service worksheets are included as part of Appendix G. Intersections not requiring any traffic improvements were not included as part of Appendix G.

5. Future Conditions With the Project – The Build Scenario

5.1 Proposed Land Uses

The project consists of four distinct development areas, as well as two areas for relocation of facilities and expansion of the County's wastewater treatment plant as shown in Figure 5-2. The DGEIS analysis addresses each area individually, as well as the project as a whole, to enable the County to decide the appropriate disposition of the property by area, or in total. The following sections describe the development proposed for each area.

5.1.1 Area A

Area A is a 34± acre parcel which includes both developed and undeveloped property. The following existing developed uses will be removed from Area A and relocated to Area E:

- Ten (10) Acres of county highway yards;
- Thirteen thousand (13,000) square feet of interior space for public works buildings;
- Sixteen thousand six hundred (16,600) square feet of interior space for a road salt storage building;
- Ninety (90) parking spaces for the County Board of Elections; and
- New doctor's cottage and shed (together with demolition and removal of the old cottage and shed)

New, proposed uses within Area A would include:

- 50,000 square feet of sports and wellness facility space;
- 50,000 square feet of office space;
- Four restaurants of 8,750 square feet each;
- 70,000 square feet of interior space for hotel use;
- 25,000 square feet of interior space for retail use;
- 72 rental units (affordable to residents earning ≤ 80% of Area Median Income)
- Arena (5,500 seats)
- Outdoor Stadium (5,000 seats)
- Non-elevated pedestrian walkway from Area A to the Yaphank LIRR station;

5.1.2 Area B

Area B is an undeveloped 121± acre parcel, proposed primarily to be developed for residential use. Proposed mixed income rental and ownership housing would include:

- 785 affordable homes:
  - 429 units affordable to residents earning ≤ 80% of Area Median Income
  - 214 units affordable to residents earning 81-100% of Area Median Income
  - 142 units affordable to those earning 101-120% of Area Median Income
- 215 market rate homes, each having no more than 2 bedrooms and 1 accessory apartment
- Day Care Center having no less than 20,000 square feet of interior space.

5.1.3 Area C

Area C is an undeveloped 28± acre parcel, proposed primarily for non-commerical recreational opportunities including outdoor athletic and supporting structures. Proposed uses in Area C will consist of two fields for football, soccer, and lacrosse, a baseball/softball field, and a fishing lake.

5.1.4 Area D

Area D is an undeveloped 95± acre parcel, proposed primarily for light industrial uses with a focus on emerging alternative energy development companies. At least four (4) megawatts of electric production facilities will be built. Since Area D was not well defined by the proposed development, the following assumptions were made for the purpose of the analysis:

- The 95± acre parcel would be developed as an industrial subdivision with 1.2 million square feet of industrial uses
- Four megawatts of solar power would be generated using rooftop solar panels on the industrial buildings.
- A clean energy plant for additional energy generation would be accommodated within the 1.2 million square feet of industrial uses.

5.1.5 Area E

Area E will consist of the relocated existing uses from Area A and will consist of the following uses:

- Ten (10) Acres of county highway yards;
- Thirteen thousand (13,000) square feet of interior space for public works buildings;
- Sixteen thousand six hundred (16,600) square feet of interior space for a road salt storage building;

- Ninety (90) parking spaces for the County Board of Elections; and
- New doctor's cottage and shed

5.1.6 Area F

Area F was set aside as part of plans to expand the County Wastewater Treatment Plant to accommodate future growth.

5.2 Site Access

The proposed development will have four access points for the four proposed development areas. Area A will have one primary access point on Yaphank Avenue, and one secondary, unsignalized access on the LIE South Service Road. Areas B and C will access Glover Drive, just west of its intersection with Yaphank Avenue. Area D will access Horseblock Road, at the intersection with the existing Brookhaven Town Landfill driveway. Specific information about entrance lanes, exit lanes, and signalization is unplanned at this time, and will be based in large part on the findings of this report.

The property will be designed to have adequate emergency access as well.

5.3 Auxiliary Lanes

Motorists who turn onto a driveway usually slow down considerably to navigate the turn. When they exit, they must accelerate quickly to merge with the traffic on the main road. Drivers need room to safely change speed, so they can avoid disrupting traffic or getting hit. Depending on the area's prevailing conditions (e.g., the 85th percentile speed, turning and conflicting volumes, sight distance) there may be a need for speed-change lanes to provide room for this. The AASHTO text does not list specific criteria for speed-change lanes, but the lanes can be recommended under certain conditions.

The prevailing speed on Horseblock Road and the LIE South Service Road during peak hours is about 10 mph higher than the speed limit. Both Horseblock Road and the LIE South Service Road has only one lane in each direction, so keeping the current lane configuration would put turning vehicles in the same lane as the through traffic. It is therefore recommended to construct an acceleration and deceleration lane at both proposed driveways. This will provide room for motorists to change speeds more safely and will remove them from the through traffic stream while they do so. The deceleration lane will also telegraph the upcoming driveway to upstream drivers, in essence increasing their sight distance.

Glover Drive leads directly to Areas B and C. At the intersection of Glover Drive and Yaphank Avenue, an auxiliary lane already exists for southbound drivers. The same is true for northbound drivers entering the Yaphank Avenue-Area A Main Driveway.

5.4 Trip Generation

The future Build volumes are determined by adding the site-generated traffic to the No Build volumes. This is done by determining the number of site trips, distributing these trips to the proper approaches, and adding the site trips to the No Build volumes.

For the purposes of this report, it was considered that the peak site-generated traffic would coincide with the peak weekday AM, Midday, PM, and Saturday travel periods on the surrounding roadways. Most initial trip generation information was referenced from the 8th Edition of the *Trip Generation* manual, published by the Institute of Transportation Engineers (ITE) in 2008. There is no ITE data available for any land use for the Midday peak hour, so Saturday data was applied to this time period. For some uses, the ITE manual has no relevant data, so local data was needed.

Table 5-1: ITE vs. Local Trip Data

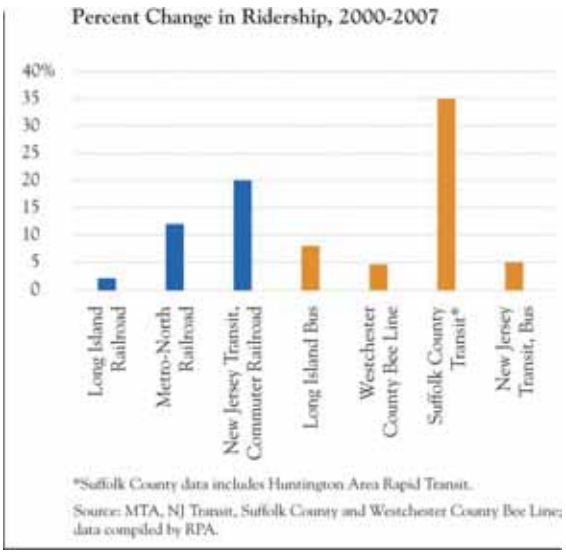
Land Use	ITE Data	Land Use Code	Based On:	Local Data
Sports and wellness facility	√	492	Rates	
Office space	√	710	Equation	
Four restaurants	√	931	Rates	
Hotel	√	310	Rates	√*
Retail	√	820	Rates	
Rental Units (Affordable)	√	220	Rates	
Legacy Village Arena	**	N/A	See Section 5.4.4	
Area A Stadium	**	N/A	See Section 5.4.4	
785 Affordable housing units	√	210	Equation	
Day Care Center	√	565	Rates	
Market Rate Housing Units	√	210	Equation	
Commercial and public recreation	√	412	Rates	
Light industrial uses	√	100	***	
Electric production facilities	√	100	See Section 5.1.4	
* ITE calculates hotel trips based on rooms, while the proposed hotel uses were allocated certain square footages. Using local data, a square footage-to-room rate was determined to project the number of rooms for the hotel use. See Section 5.4.1				

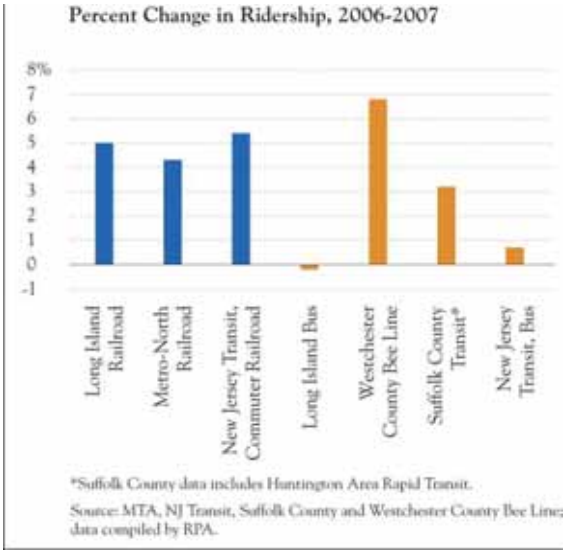
** ITE does not contain data for this land use. Therefore, several assumptions were made to calculate an arena/stadium's associated trips. These assumptions are stated in Section 5.4.4
*** AM and PM Peak hour trip generation calculations utilized the equations. MD and Saturday trip generations were based on the rates.

5.4.1 Transit Credit

As mentioned earlier in this report, the site is close to two SCT bus routes which have stops near the proposed development, and one LIRR station located adjacent to Area A. These modes of mass transit help service numerous locations within the Town of Brookhaven, providing a direct travel mode to several popular destinations without the need to transfer to a different bus or train. The bus schedule (as of the writing of this report) indicates that the S71 bus route can arrive at Stony Brook Railroad in approximately one hour, which is very conducive to commuter trips. In addition, the levels of bus-commuting would be expected to remain the same or increase if the proposed development is constructed.

The Long Island Index has released information which illustrates that transit ridership has increased on Long Island over the past several years. A copy of this article is included in Appendix J





Between 2000-2007, SCT ridership increased by 35%, or 4.4% annually. Between 2006-2007, SCT ridership growth was at approximately 3%. In addition, data from *A Review of Selected Growth and Development Areas*, published by Suffolk County Department of Planning in August 2006 reports that 3% of Yaphank residents took public transportation to work. Therefore, it is expected that a percentage of the proposed development's residential uses will utilize public transportation or increase transit ridership in the area.

When consistent levels of bus or train travel are expected at a particular site, it is appropriate to apply what is called a "transit credit" to the initial trip generation calculation. The purpose of this transit credit is to account for alternative means of transportation, and thereby reducing vehicle trips by a certain percentage. The total number of person trips remains the same; only the travel mode (vehicle vs. walking/transit) is affected. To be conservative, a transit credit of 3% was applied to the peak hour trips taken by the residential and industrial components of the proposed development (Area B and Area D). This 3% transit credit is based on 2000 census data, which indicated that 3% of Yaphank residents took public transportation to work. The total trip generation number will be the same, but it includes 3% of peak hour trips being made by bus/LIRR and 97% of peak hour trips being made by private vehicle.

5.4.2 Internal Capture

The ITE *Trip Generation* manual is based on "stand alone" single-use type developments and does not take into account reductions in trip generation that will result from the mixed-use nature of this project. The ITE *Trip Generation Handbook* recognizes that the overall number of external vehicle trips generated by a mixed-use development will be less than the number of trips that would be generated by each of the individual uses separately. This is because a portion of the trips will be internal trips which take place between the various land uses and does not leave the project area, and therefore does not impact the external roadway network.

This TIS utilized a conservative 10 percent internal capture of Area A's non-arena traffic by Area B to illustrate that 10% of Area A's workforce will most likely be living in Area B. In addition, 5% of Area D's traffic was internally captured by Area B. Likewise, this is to demonstrate that 5% of Area D workforce is projected to live in Area B. Taking into consideration the numerous sources of local employment (for example, Yaphank County Center, John J. Foley's Nursing Home, Suffolk County Services) an additional 5% of Area B's traffic is assumed to be captured by the local area.

5.4.3 Hotel Room Square Footage-Room Rate

As mentioned in Table 5-1, a proposed land use for this development included allocated square footages for a hotel. The ITE *Trip Generation* manual only has trip data for hotels based on the number of rooms. Therefore, to calculate an appropriate square footage-to-room ratio for the proposed hotel use, local data at an existing hotel, similar in use to the proposed development's hotel in Suffolk County was utilized.

The Long Island Sheraton Hotel in Hauppauge currently contains 209 rooms on 158,000 square feet. This corresponds to a rate of 209 rooms / 158,000 square feet, or 1 room per 756 square feet, which is approximately 1 room per 750 square feet.

5.4.4 Arena and Stadium Methodology

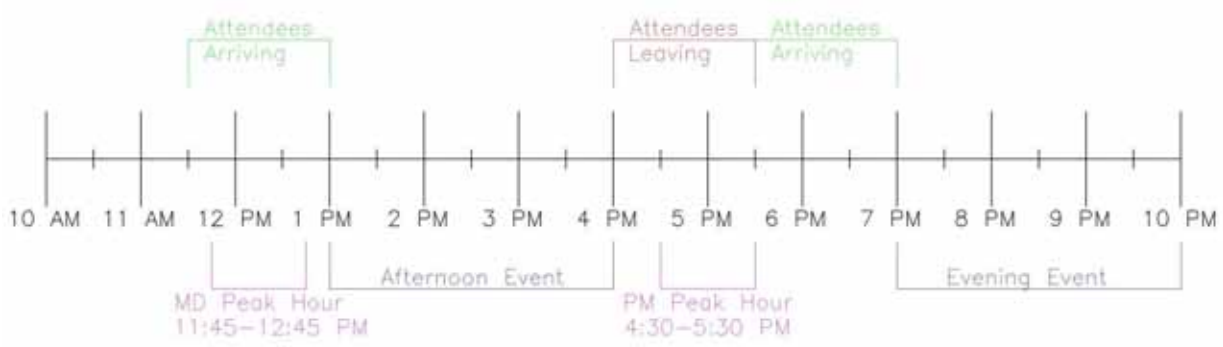
Due to the ITE manual having no relevant data for arena and stadium land uses, along with there being no local traffic studies regarding arena and stadium traffic generation, several assumptions were made in order to develop the expected traffic volumes for this land use.

- Only one event is scheduled at any given time between the two venues, and this event occurs at the arena due to its higher capacity. This provides for a more conservative scenario should an event instead be scheduled at the stadium.
- This event can be scheduled during the weekday midday, PM, and Saturday midday peak hours. An event is expected to last approximately 3 hours. The possible starting times for this event are at 1:00 PM for an afternoon event, and at 7:00 PM for an evening event. These starting times are based on the schedule of events listed for Nassau Coliseum, a local regional arena which hosts numerous events throughout the year. Nassau Coliseum's schedule of events is included in Appendix H.
- Each event is expected to have a 100 percent attendance rate to reflect the possibility of a sold out event. Most events typically will have an 80-90 percent attendance rate, and so utilizing a 100 percent rate is a conservative approach. Based on the 5,500 seats available at the arena, 5,500 people are expected to attend an event.
- The attendees are expected to all arrive in a personal vehicle with a 2.5 persons/vehicle occupancy rate, a standard rate widely used in calculating arena/stadium traffic. Therefore, 2,200 vehicles are projected to attend and leave from an event. Due to the site's proximity to the LIRR, along with the SCT transit system, it is expected that some patrons will utilize mass transit to attend an event, but to be conservative, this was not considered.
- To account for vehicles leaving the site before an event starts, or vehicles arriving after an event has finished, a conservative estimate of 5% of the 2,200 vehicles entering/exiting the site in the opposite direction was utilized to simulate this. Therefore, before an event, 2,200 vehicles are expected to enter the site, while 110 vehicles are exiting the site at the same time.

- Attendees are expected to arrive/depart 90 minutes before/after a scheduled event. The attendees will arrive and discharge at a uniform rate over those 90 minutes, which corresponds to 67% of the attendees arriving/exiting within one hour of an event, or 1,474 vehicles, and 74 vehicles entering/exiting in the opposite direction.
- Therefore, a peak hour during the arrival period before an event will have 1,474 entering vehicles, and 74 vehicles exiting the site. A peak hour during the departure period after an event will have 1,474 exiting vehicles, and 74 vehicles entering the site.

Based on these assumptions, a timeline can be established to illustrate the arrival and departure patterns of an event occurring at the arena in the midday and for the PM peak hour.

Figure 5-1: Arena Arrival/Departure Weekday Timeline



As shown, the Midday and PM peak hours resides with the 90 minute arrival period prior to an afternoon event, and the 90 minute departure period after an afternoon event,

The Midday and PM peak hours were determined based on the overall network peak hour of all thirteen study intersections. In addition, 2007 AADT volumes for Yaphank Avenue, from the LIE North Service Road to Horseblock Road, 2008 AADT volumes for the LIE, from Yaphank Avenue to CR 46 confirms that the overall network peak hours corresponds to the surrounding roadway's peak hour. These volumes are included in Appendix K.

Within the timeline, there any no overlaps between an afternoon event's exiting traffic and an evening's entering traffic. Even during the 5-6 PM hour, the afternoon's remaining 33% exiting traffic will depart within the first 30 minutes before the evening's initial 33% entering traffic will arrive at the site. Should there be events scheduled closer together than the 6 hour gap provided as shown, additional analyses would need to be conducted.

During the periods when the arena would host events, the arena will operate during the off-peak periods of the roadway network. Table 5-2 illustrates the percentage decrease in weekday background traffic based on the surrounding roads:

Table 5-2: Weekday Background Traffic

Weekday Hours								
Location	Direction	12-1PM	1-2 PM		4-5PM	5-6PM	6-7PM	7-8PM
LIE, Between Yaphank Avenue and CR 46								
	EB	2,495	2,394		3,243	3,448	2,799	2,163
	WB	2,457	2,502		3,578	3,684	2,653	2,209
	Total	**4,952**	**4,896**		**6,821**	**7,132**	**5,452**	**4,372**
	% Change		-1.14%			4.4%	-30.8%	-24.7%
Yaphank Avenue, Between LIE North Service Road and South Service Road								
	NB	326	295		472	340	231	176
	SB	280	265		307	354	294	195
	Total	606	560		779	694	525	371
	% Change		-8.21%			-12.2%	-32.2%	-41.5%

As shown, there is a large decrease in the background traffic from 5-6PM until the start of the event at 7-8PM. The background volumes experienced at this time are actually less than those encountered during the Midday peak hour. Therefore, there is no need to analyze the weekday evening period during an evening event, since the volumes encountered at that time would be less than those encountered in the Midday peak hour. This also holds true for a weekend event. A weekend evening event's surrounding roadway network will have less volumes than during the arrival period for a weekend afternoon event during the peak hour.

Table 5-3: Weekend Background Traffic

Weekend Hours								
Location	Direction	12-1PM	1-2 PM		4-5PM	5-6PM	6-7PM	7-8PM
LIE, Between Yaphank Avenue and CR 46								
	EB	4,693	4,155		3,069	2,763	2,446	1,860
	WB	2,361	2,474		3,366	3,473	3,472	3,290
	Total	7,054	6,629		6,435	6,236	5,918	5,150
	% Change		-6.41%			-3.2%	-5.4%	-14.9%
Yaphank Avenue, Between LIE North Service Road and South Service Road								
	NB	259	316		447	243	179	184
	SB	238	254		289	189	183	139
	Total	497	570		736	432	362	323
	% Change		12.81%			-70.4%	-19.3%	-12.1%

5.4.5 Area A Trip Generation

Area A's proposed development is described in Section 5.1.1. As described, it is proposed to allocate 70,000 square feet of interior space for hotel use. Based on the square footage-room rate, calculated from Section 5.4.3, 70,000 square feet / 750 square feet corresponds to 90 hotel rooms. Table 5-4 presents the estimated peak hour trips Area A will generate, not including the arena traffic associated with an event:

Table 5-4: Area A Peak Hour Trip Generation

Proposed Use	AM Peak Hour		Midday	PM	Saturday
Sports and Wellness	Enter:	31 tph	63 tph	100 tph	63 tph
	Exit:	38 tph	77 tph	76 tph	77 tph
	Total:	69 tph	139 tph	177 tph	139 tph
Office Space	Enter:	68 tph	11 tph	13 tph	11 tph
	Exit:	10 tph	10 tph	62 tph	10 tph
	Total:	78 tph	21 tph	75 tph	21 tph
Restaurants	Enter:	19 tph	223 tph	176 tph	223 tph
	Exit:	19 tph	155 tph	86 tph	155 tph
	Total:	38 tph	378 tph	262 tph	378 tph
Hotel Use	Enter:	32 tph	37 tph	29 tph	37 tph
	Exit:	20 tph	30 tph	26 tph	30 tph
	Total:	52 tph	67 tph	55 tph	67 tph
Retail Use	Enter:	15 tph	64 tph	46 tph	64 tph
	Exit:	10 tph	59 tph	48 tph	59 tph
	Total:	25 tph	122 tph	93 tph	122 tph

Rental Units	Enter:	7 tph	19 tph	29 tph	19 tph
	Exit:	30 tph	19 tph	16 tph	19 tph
	Total:	37 tph	37 tph	45 tph	37 tph
Total	Enter:	172 tph	416 tph	393 tph	416 tph
	Exit:	127 tph	349 tph	314 tph	349 tph
	Total:	299 tph	765 tph	708 tph	765 tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

The next step was to remove the trips that would be attributed to the 10% internal capture by Area B.

Table 5-5: Net Non-Arena Generated Vehicle Trips

Proposed Use	AM Peak Hour		Midday	PM	Saturday
-10% Internal Capture	Enter:	17 tph	42 tph	39 tph	42 tph
	Exit:	13 tph	35 tph	31 tph	35 tph
	Total:	30 tph	77 tph	70 tph	77 tph
Net Non-Arena Vehicle Trips	Enter:	155 tph	374 tph	354 tph	374 tph
	Exit:	114 tph	314 tph	283 tph	314 tph
	Total:	269 tph	688 tph	638 tph	688 tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

The final step was to include the arena trips generated by an event during the Midday and PM peak hours, as shown in Table 5-6:

Table 5-6: Net Area A Generated Vehicle Trips

Proposed Use	AM Peak Hour		Midday	PM	Saturday
Arena Vehicle Trips	Enter:	0 tph	1,474 tph	74 tph	1,474 tph
	Exit:	0 tph	74 tph	1,474 tph	74 tph
	Total:	0 tph	1,548 tph	70 tph	1,548 tph
Net Area A Vehicle Trips	Enter:	172 tph	1.890 tph	467 tph	1,890 tph
	Exit:	127 tph	423 tph	1,788 tph	423 tph
	Total:	299 tph	2,313 tph	2,256 tph	2,313 tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

5.4.6 Area B Trip Generation

Area B's proposed development is described in Section 5.1.2. Table 5-7 presents the estimated peak hour trips Area B will generate. It should be noted that the proposed 20,000 square foot Day Care Center is envisioned to serve mainly the Area B residents.

Therefore, there would be no external trips generated by this land use to the outer roadway network.

Table 5-7: Area B Peak Hour Trip Generation

Proposed Use	AM Peak Hour		Midday	PM	Saturday
Affordable Homes	Enter:	140 tph	375 tph	423 tph	375 tph
	Exit:	419 tph	333 tph	248 tph	333 tph
	Total:	559 tph	708 tph	671 tph	708 tph
Market Rate Homes	Enter:	40 tph	106 tph	132 tph	106 tph
	Exit:	120 tph	94 tph	77 tph	94 tph
	Total:	160 tph	201 tph	209 tph	201 tph
Day Care	Enter:	130 tph	21 tph	117 tph	21 tph
	Exit:	115 tph	13 tph	132 tph	13 tph
	Total:	245 tph	34 tph	249 tph	34 tph
Total	Enter:	310 tph	502 tph	672 tph	502 tph
	Exit:	654 tph	440 tph	457 tph	440 tph
	Total:	964 tph	943 tph	1,129 tph	943 tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

The next step was to remove the trips that would be attributed to the 10% internal capture to Area A, the 5% internal capture of B to the local area, the 5% internal capture of Area D by Area B, the internal capture of the Day Care Center by Area B, and the 3% transit credit associated with Area B.

Table 5-8: Net Area B Generated Vehicle Trips

Proposed Use	AM Peak Hour		Midday	PM	Saturday
-10% Internal Capture to Area A	Enter:	17 tph	42 tph	39 tph	42 tph
	Exit:	13 tph	35 tph	31 tph	35 tph
	Total:	30 tph	77 tph	70 tph	77 tph
-5% Internal Capture to Local Area	Enter:	16 tph	25 tph	34 tph	25 tph
	Exit:	33 tph	22 tph	23 tph	22 tph
	Total:	48 tph	47 tph	56 tph	47 tph
-5% Internal Capture of Area D	Enter:	58 tph	4 tph	9 tph	4 tph
	Exit:	8 tph	4 tph	69 tph	4 tph
	Total:	66 tph	8 tph	78 tph	8 tph
- Day Care Internal Capture	Enter:	130 tph	21 tph	117 tph	21 tph
	Exit:	115 tph	13 tph	132 tph	13 tph
	Total:	245 tph	34 tph	249 tph	34 tph
-3% Transit Credit For Area B	Enter:	9 tph	15 tph	20 tph	15 tph
	Exit:	20 tph	13 tph	14 tph	13 tph
	Total:	29 tph	28 tph	34 tph	28 tph

Net Area B Vehicle Trips	Enter:	80 tph	395 tph	453 tph	395 tph
	Exit:	465 tph	353 tph	188 tph	353 tph
	Total:	546 tph	749 tph	642 tph	749 tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

5.4.7 Area C Trip Generation

Area C's proposed development is described in Section 5.1.3. Table 5-9 presents the estimated peak hour trips Area C will generate.

Table 5-9: Area C Peak Hour Trip Generation

Proposed Use	AM Peak Hour		Midday	PM	Saturday
Athletic Fields	Enter:	0 tph	37 tph	1 tph	37 tph
	Exit:	0 tph	26 tph	1 tph	26 tph
	Total:	0 tph	63 tph	2 tph	63 tph

Notes: 1. tph = trips per hour
2. Saturday trips were used for Midday trips for ITE uses

5.4.8 Area D Trip Generation

Area D's proposed development is described in Section 5.1.4. Table 5-10 presents the estimated peak hour trips Area D will generate.

Table 5-10: Area D Peak Hour Trip Generation

Proposed Use	AM Peak Hour		Midday	PM	Saturday
Light Industrial	Enter:	1,168 tph	84 tph	187 tph	84 tph
	Exit:	159 tph	84 tph	1,372 tph	84 tph
	Total:	1,327 tph	168 tph	1,559 tph	168 tph

Notes: 1. tph = trips per hour
2. Saturday trips were used for Midday trips for ITE uses

The next step was to remove the trips that would be attributed to the 5% internal capture to Area B, and the 3% transit credit associated with Area D.

Table 5-11: Net Area D Generated Vehicle Trips

Proposed Use	AM Peak Hour		Midday	PM	Saturday
-5% Internal Capture to Area B	Enter:	58 tph	4 tph	9 tph	4 tph
	Exit:	8 tph	4 tph	69 tph	4 tph
	Total:	66 tph	8 tph	78 tph	8 tph
-3% Transit Credit For Area D	Enter:	35 tph	3 tph	6 tph	3 tph
	Exit:	5 tph	3 tph	41 tph	3 tph
	Total:	40 tph	6 tph	47 tph	6 tph
Net Area D Vehicle Trips	Enter:	1,075 tph	77 tph	172 tph	77 tph
	Exit:	146 tph	77 tph	1,262 tph	77 tph
	Total:	1,221 tph	154 tph	1,434 tph	154 tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

5.4.9 Area E Trip Generation

There were no external trips associated with the relocation of the existing uses from Area A. These trips would simply be shifted from Area A to Area E, while remaining completely within the study area. Therefore, no new trips would be generated.

5.4.10 Area F Trip Generation

There were no external trips associated with Area F's development. As stated in 5.1.6, this area was mainly set aside to allow for possible expansion of the Wastewater Treatment Plant facilities. No new development is proposed at this time in this area.

5.5 Distribution and Assignment of Site-Generated Traffic

Cameron Engineering next determined the peak volumes of traffic this development would generate in each direction at each study intersection. This was done by performing a directional distribution analysis, to determine the percentages of site trips which will occur during typical peak hour periods at each intersection approach. For example: "*15% of exiting trips will make the northbound left turn at the intersection of...*"

Due to the proposed development and its mixed use nature, its associated travel patterns, will have three separate components: trips associated with industrial/office uses, trips associated with residential uses, and trips associated with recreational uses (for example, Area A's stadium/arena). The groups will have different travel patterns, origins, and destinations, and were therefore projected separately. Each group's site trip distribution are presented in the following tables:

Table 5-12: Industrial/Office Trip Distribution

ORIGIN/DESTINATION	INBOUND	OUTBOUND
To/from the northeast via the LIE	30%	30%
To/from the northwest via the LIE	25%	25%
To/from the southeast via Sunrise Highway	35%	35%
To/from the southwest via Sunrise Highway/Horseblock Road	10%	10%

Table 5-13: Residential Trip Distribution

ORIGIN/DESTINATION	INBOUND	OUTBOUND
To/from the northeast via the LIE	15%	15%
To/from the northwest via the LIE	55%	55%
To/from the southeast via Sunrise Highway	15%	15%
To/from the southwest via Sunrise Highway/Horseblock Road	15%	15%

Table 5-14: Industrial/Office Trip Distribution

ORIGIN/DESTINATION	INBOUND	OUTBOUND
To/from the northeast via the LIE	20%	20%
To/from the northwest via the LIE	50%	50%
To/from the southeast via Sunrise Highway	10%	10%
To/from the southwest via Sunrise Highway/Horseblock Road	20%	20%

Once these distributions were set, they were used to calculate actual numbers of site-generated trips. For example: "*15% of 100 exiting trips, equals 15 trips added to the northbound left turn at the intersection of...*"

The precise distributions are shown in Appendix B. That table also illustrates the existing, 2025 No Build, and 2025 Build volumes, plus any percentage changes in movement volume between the No Build and Build scenarios.

Figure 5-3 through Figure 5-6 graphically depicts the distribution of site-generated traffic for each individual area during each study period. Figure 5-7 through Figure 5-11 depicts the generated volumes for each area during each study period. Figure 5-12 through Figure 5-15 depicts the entirety of the proposed development's traffic volumes. These generated volumes were added to the No Build volumes to determine the Build volumes, which are shown in Figure 5-16 through Figure 5-19.

5.6 Parking

5.6.1 Town of Brookhaven Parking Requirements

The Town of Brookhaven requires 10,074 parking spaces for this proposed development. A breakdown of each area is presented in Table 5-15

Table 5-15: Parking Requirements

Area	Use	Quantity		Unit	Rate	Spaces	Total Area Parking
A	Sports and Wellness		50,000	Gross S.F.	1 space per 150 s.f.	333	4,417
	General Office		50,000	Gross S.F.	1 space per 150 s.f.	333	
	Restaurants		1,200	Seats	1 space per 2 seats	600	
	Hotel		90	Units	1 space per unit	90	
	Retail		25,000	Gross S.F.	1 space per 150 s.f.	167	
	Affordable Apartments		72	Units	2 spaces per unit	144	
	Arena		5,500	Seats	1 space per 2 seats	2,750	
	Outdoor Stadium		5,000	Seats	1 space per 2 seats	2,500*	
B	Affordable Homes		785	Units	2 spaces per units	1,570	2,265
	Market-Rate Homes	215	2 br plus 1 br apt	Units	2/dwelling unit 1/accessory apt	645	
	Day-Care		20,000	Gross S.F.	1 space per 400 s.f.	50	
C	Athletic Facilities & Trails		3	Fields	64.27 Spaces per Field**	167	167
D	Light Industrial		1,200,000	Gross S.F.	1/400 sf	3,000	3,000
E	Relocated Salt Storage		16,000	Gross S.F.	1/2000 sf	8	205
	Relocated Offices		13,000	Gross S.F.	1/150 sf	87	
	Relocated Doctor's Cottage and Shed		3,000	Gross S.F.	1/150 sf	20	
	Relocated Board of Elections Parking					90	
F	Wastewater Treatment Plant Expansion					20	20
						TOTAL	10,074

*Parking would be shared between the arena and the stadium. As stated in Section 5.4.4, there will only be one event scheduled at any point between the arena and the stadium. Should there be two events scheduled simultaneously at both venues, more parking would be required on-site.

**A parking requirement was not provided within the Town of Brookhaven Town Code. Therefore, the ITE rate was used.

Based on ADA Accessibility Guidelines for handicapped parking, each area is required to have:

Table 5-16: Required Accessible Spaces

Area	Area Parking	Rate	Required Number of Accessible Spaces
A	4,417	20 plus 1 for each 100 over 1,000	54
B	2,265	20 plus 1 for each 100 over 1,000	33
C	167		6
D	3,000	20 plus 1 for each 100 over 1,000	40
E	205		7
F	20		1
		TOTAL	141

5.6.2 Peak Parking Demand

The ITE *Parking Generation* manual (3rd Edition) indicates that the peak weekday parking demand for the proposed development is as follows:

Table 5-17: Peak Parking Demand

Area	Use	Quantity		Unit	85th Percentile Rate	Demand	Total Parking Demand
A	Sports and Wellness	50,000		Gross S.F.	8.27 veh / 1,000 S.F.	414	4,434
	General Office	50,000		Gross S.F.	3.44 veh / 1,000 S.F.	172	
	Restaurants	1,200		Seats	0.65 veh / 1 seat	780	
	Hotel	90		Units	1.14 veh / 1 room	103	
	Retail	25,000		Gross S.F.	4.36 veh / 1,000 S.F.	109	
	Affordable Apartments	72		Units	1.46 veh / 1 unit	106*	
	Arena	5,500		Seats	1 space per 2 seats	2,750**	
	Outdoor Stadium	5,000		Seats	1 space per 2 seats	2,500**	
B	Affordable Homes	785		Units	2.14 veh / 1 unit	1,680	2,675
	Market-Rate Homes	215	2 br plus 1 br apt	Units	2.14 veh / 1 unit	921	
	Day-Care	20,000		Gross S.F.	3.70 veh / 1,000 S.F.	74	
C	Athletic Facilites & Trails	3		Fields	64.27 Spaces per Field***	167	167
D	Light Industrial	1,200,000		Gross S.F.	1.13 veh / 1,000 S.F.	1,356	1,356
E	Relocated Salt Storage	16,000		Gross S.F.	0.67 veh / 1,000 S.F.	11	159
	Relocated Offices	13,000		Gross S.F.	3.44 veh / 1,000 S.F.	45	
	Relocated Doctor's Cottage and Shed	3,000		Gross S.F.	4.30 veh / 1,000 S.F.	13	
	Relocated Board of Elections Parking					90	
F	Wastewater Treatment Plant Expansion					20	20
						TOTAL	8,811

*The ITE *Parking Generation* manual has no data for Land Use Code 220 (Apartments). Therefore, the closest Land Use Code (221, Low/Mid-Rise Apartments) was used instead.

** As stated in Section 5.4.4, an event is expected to have a 100 percent attendance rate. Therefore, the arena is expected to be at full occupancy. Parking demand would be shared between the arena and the stadium. There will

only be one event scheduled at any time, either at the arena or at the stadium. **Should there be two events scheduled simultaneously at both venues, more parking would be required on-site.**

***The *Parking Generation* manual has no data in regards to Land Use Code 412 County Park. Therefore, parking demand was calculated based on the ITE *Trip Generation* manual.

As was the case with Section 5.4.2 Internal Capture, the ITE *Parking Generation* manual is also based on single-use developments and does not take into consideration the reductions in parking demand that will result from a mixed-use development such as the proposed development. The ULI *Shared Parking* manual recognizes that the peak overall parking demand required by a mixed-use development will be less than the required number of parking spaces generated by each individual use separately. This is because a portion of a land use's patrons will not move their vehicles in order to visit another near-by land use, and therefore not generate any additional parking demand.

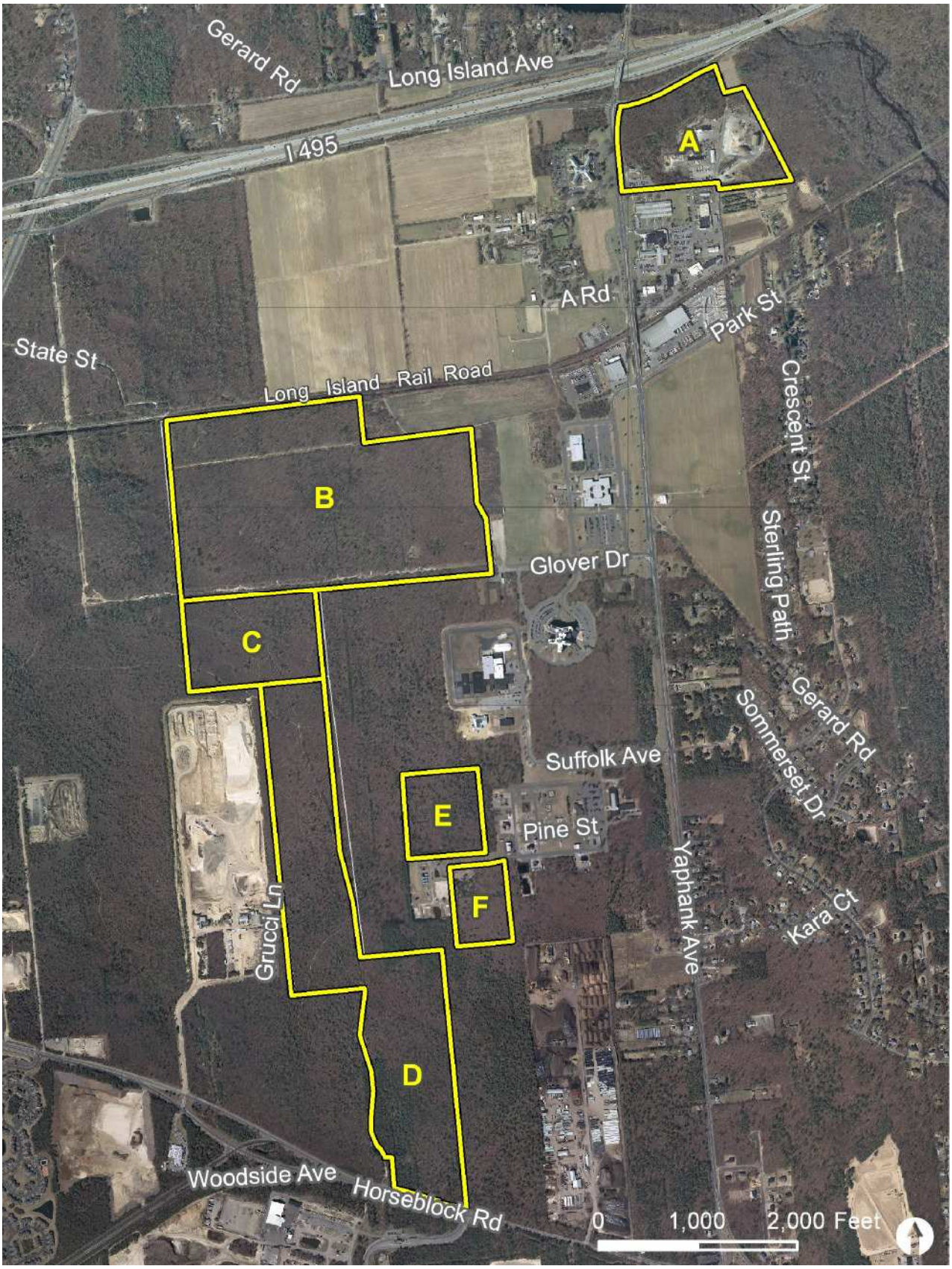
This TIS utilized a conservative 10 percent shared parking rate of Area A's non-arena parking demand (1,684 parking spaces), a standard rate used for many mixed use developments. Therefore, the next step in calculating the actual peak parking demand of the proposed development is to remove Area A's shared parking credit (10% of 1,684, or 168 parking spaces. Area A's peak total parking demand would therefore be 4,434-168 = 4,266 parking spaces. The proposed development's total parking demand would correspond to 8,643 parking spaces.

"Shared parking" refers to parking spaces which are utilized at different times by users of different spaces within close proximity. For example, a vehicle trip to the retail and housing portions of a single mixed-use development could be served by a single parking space. This in turn means that the total parking needed for all uses on a site is less than the sum of each use's individual parking needs.

Shared parking is reasonable for the mix of uses provided under the Proposed Action. It is anticipated that as part of the approval process, the Selected Developer would do an analysis to determine the actual parking demand based upon the operations of the arena and stadium, as well as an analysis of the degree to which shared parking could be achieved. This could lessen the amount of parking required if approved by the Town of Brookhaven as part of the Planned Development District approval process.

Alternatively, the Selected Developer could explore the potential of arrangements for using off-site parking areas that are unused on nights and weekends, such as at the County Complex.

The Shared Parking issue will require further analysis when more details of the plan are available.



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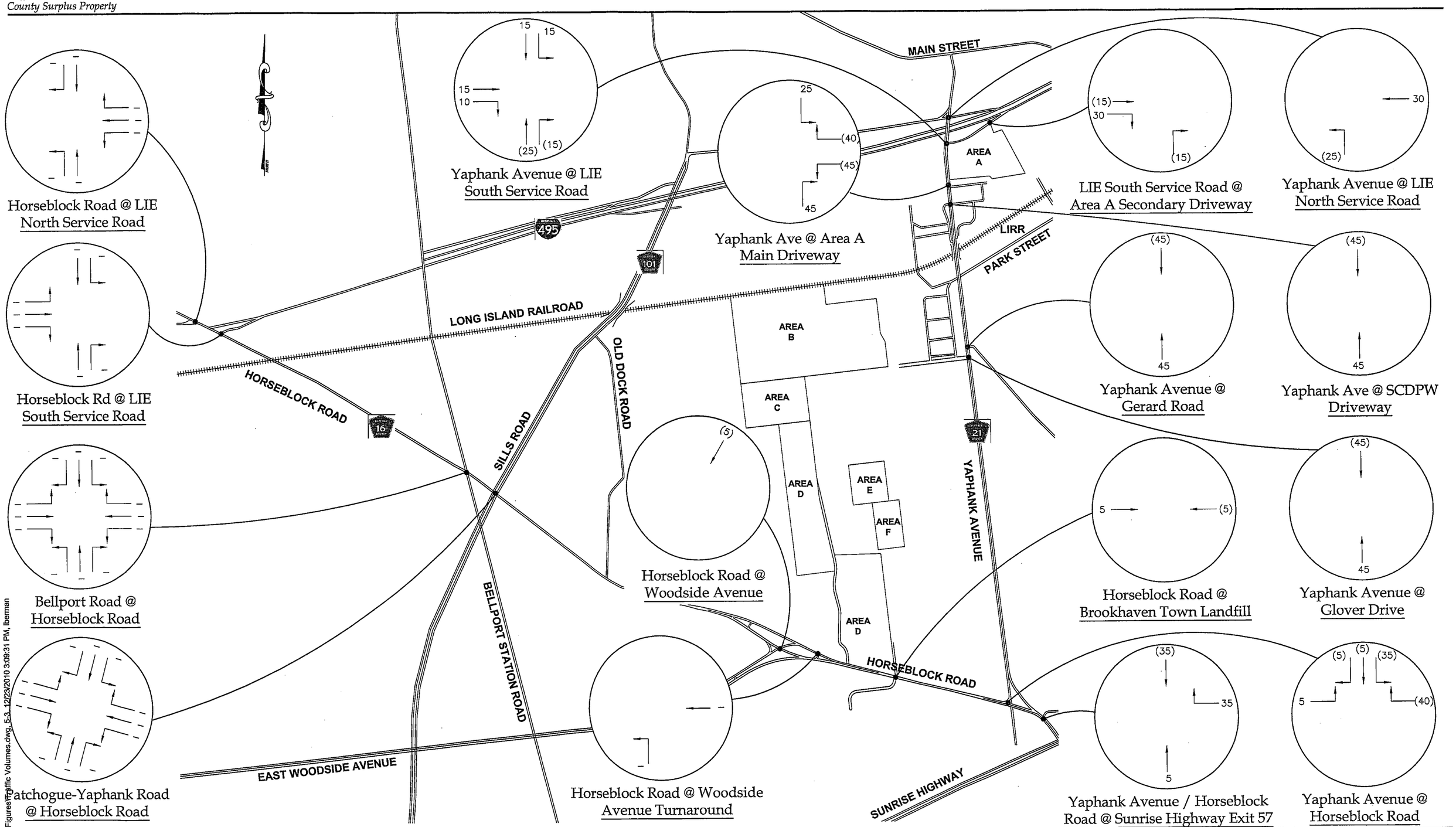
Aerial Map
Figure No. 5-2



Distribution of Area A Non-Arena Site-Generated Traffic

KEY: Entering Trips (Exiting Trips)

Figure No. 5-3

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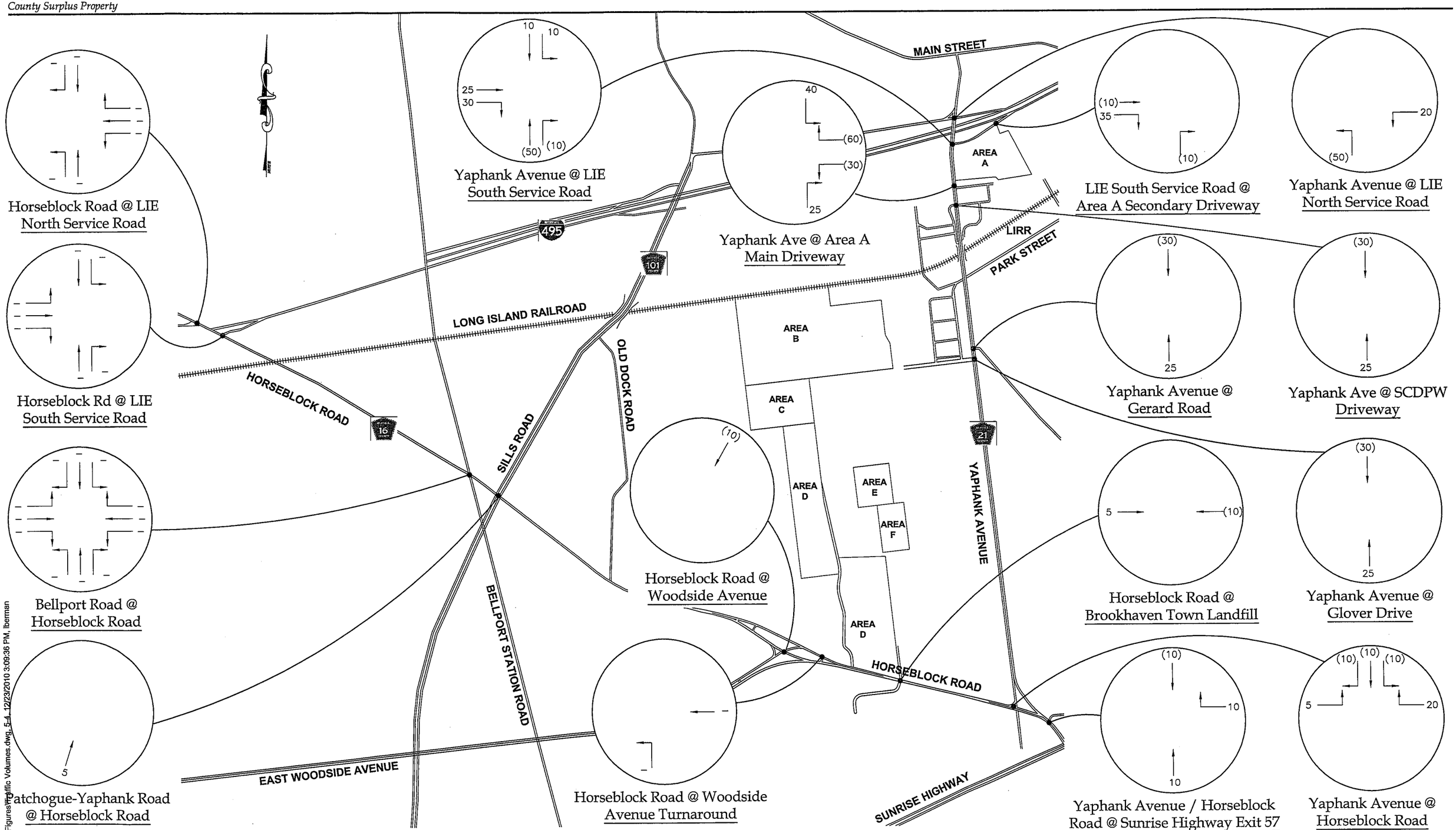

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KEY: Entering Trips (Exiting Trips)

Distribution of Area A Arena Site-Generated Traffic

Figure No. 5-4

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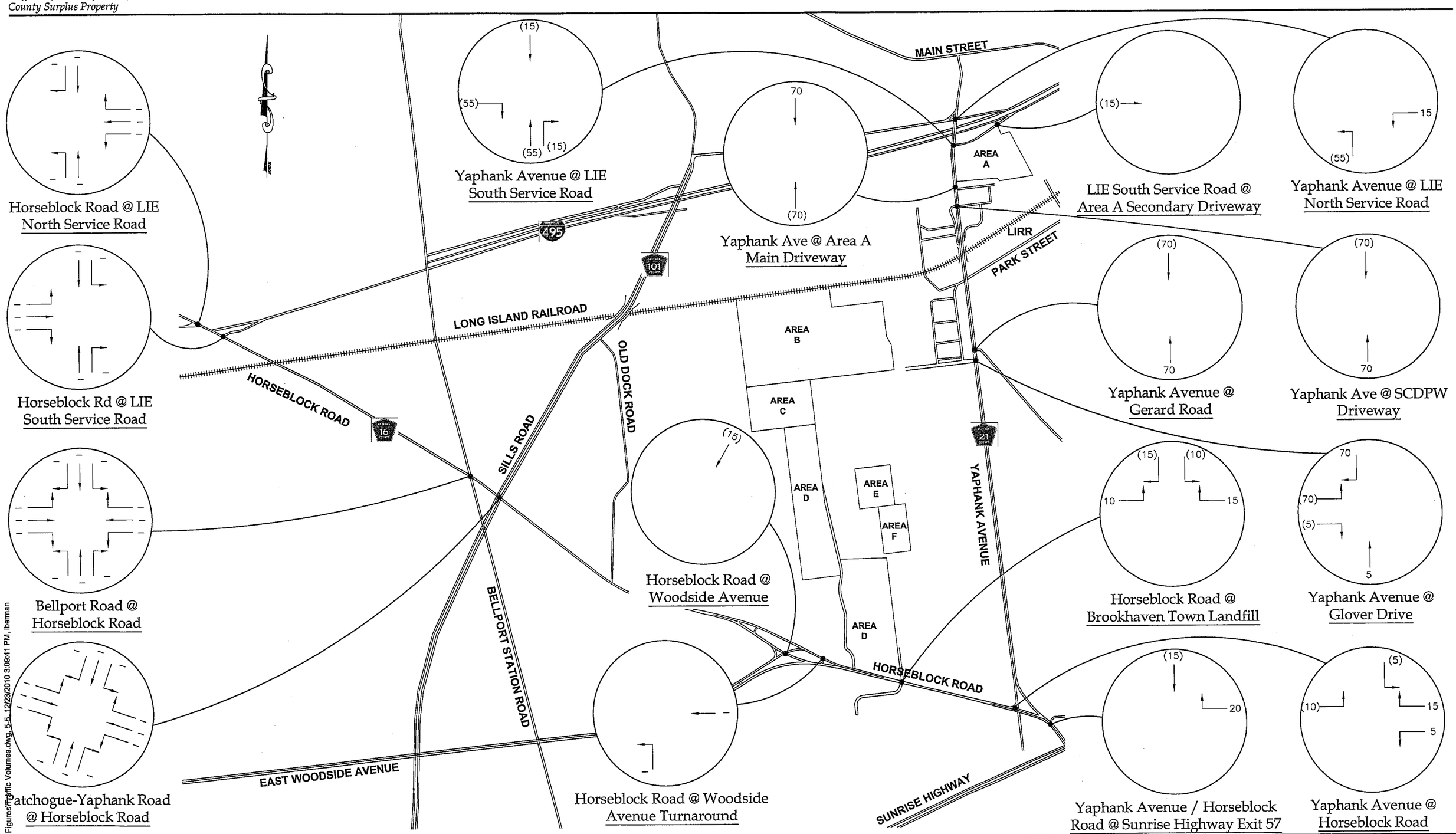

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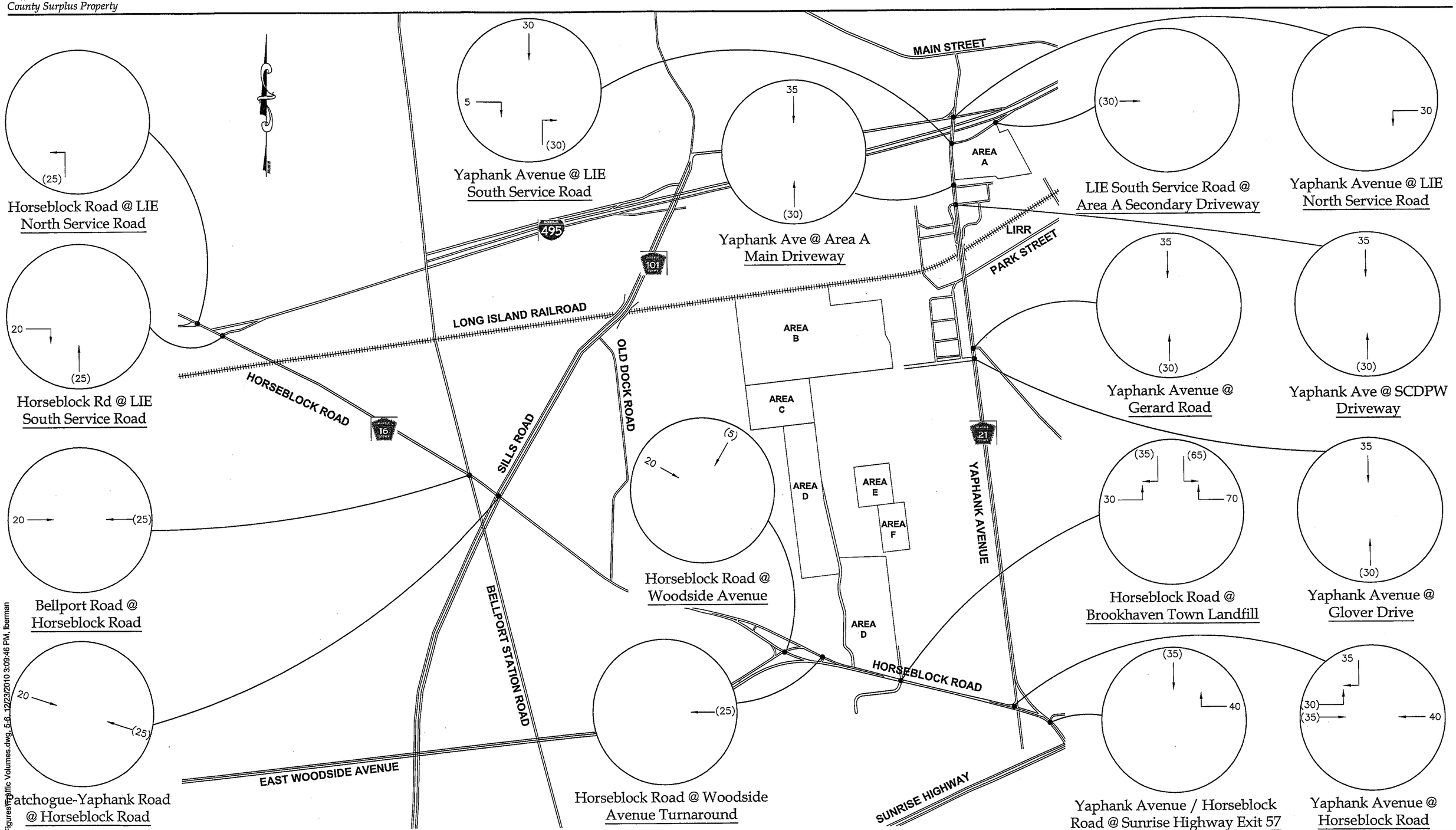
Distribution of Area B and C Site-Generated Traffic

KEY: Entering Trips (Exiting Trips)

Figure No. 5-5



KEY: Entering Trips (Exiting Trips)

Distribution of Area D Site-Generated Traffic

Figure No. 5-6

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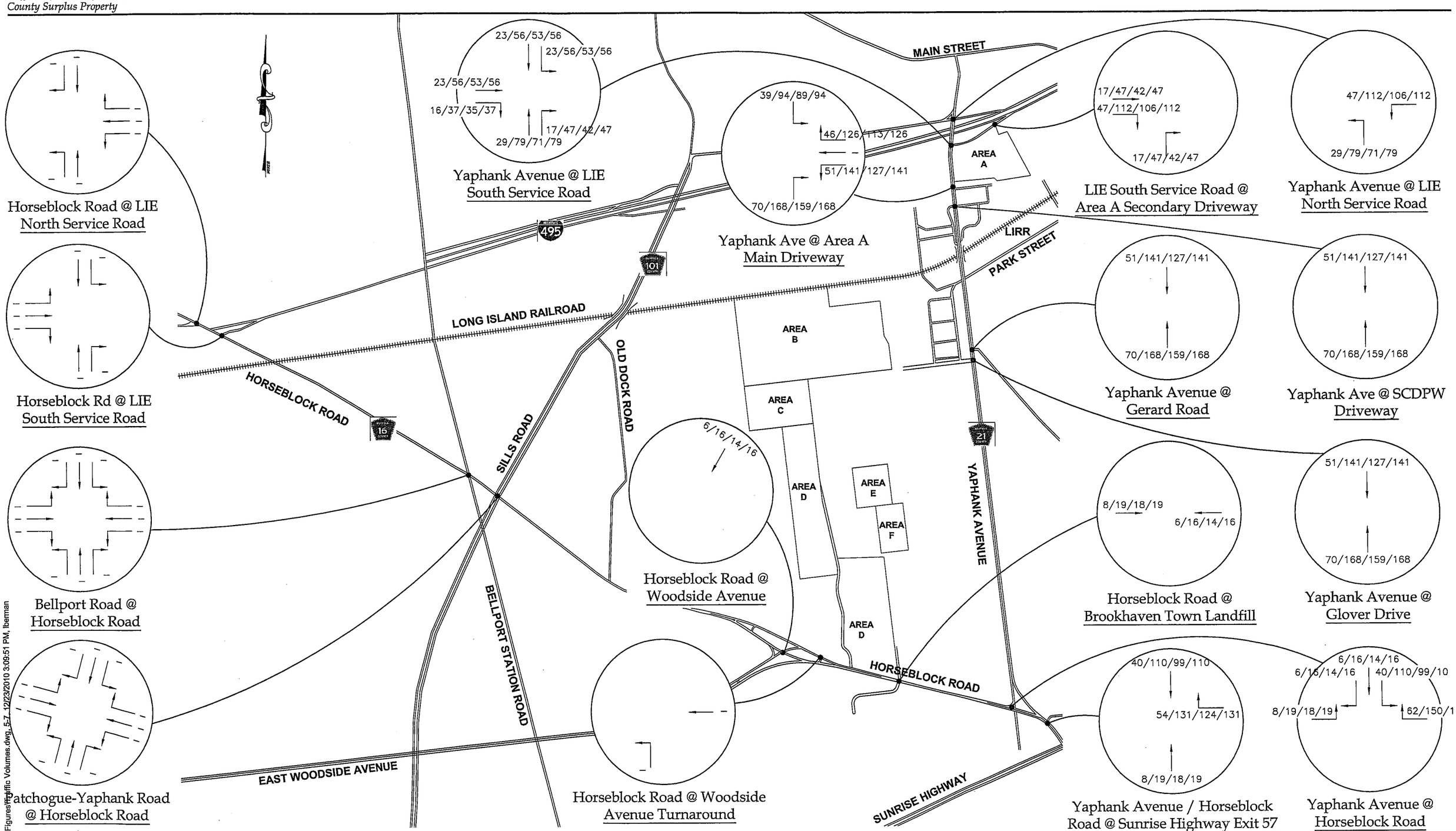

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Area A Non-Arena AM, Midday, PM, and Saturday Peak Hour Generated Traffic

Key: AM/Midday/PM/Saturday

Figure No. 5-7

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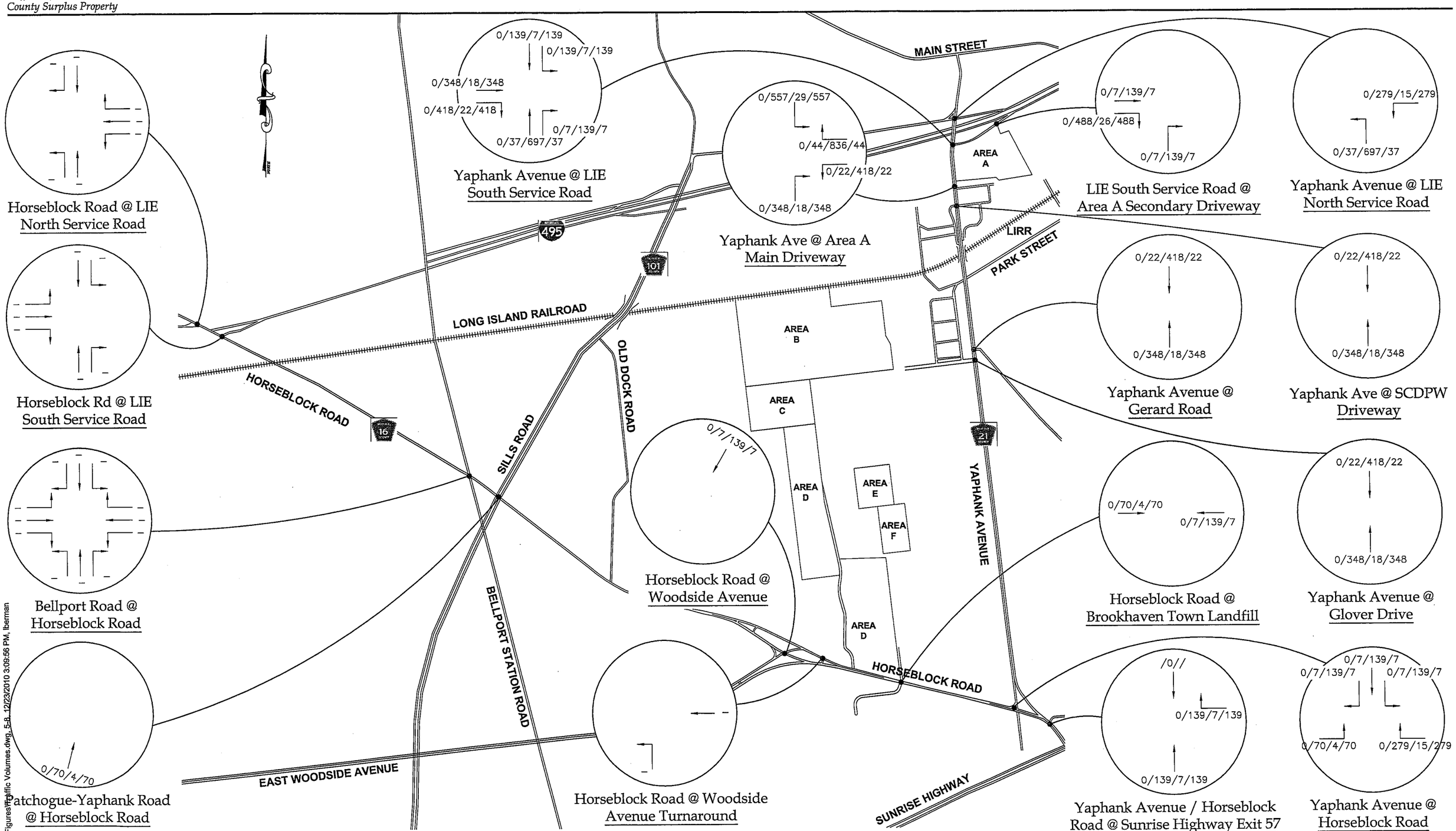

Key: AM/Midday/PM/Saturday

Area A Arena AM, Midday, PM, and Saturday Peak Hour Generated Traffic

Figure No. 5-8

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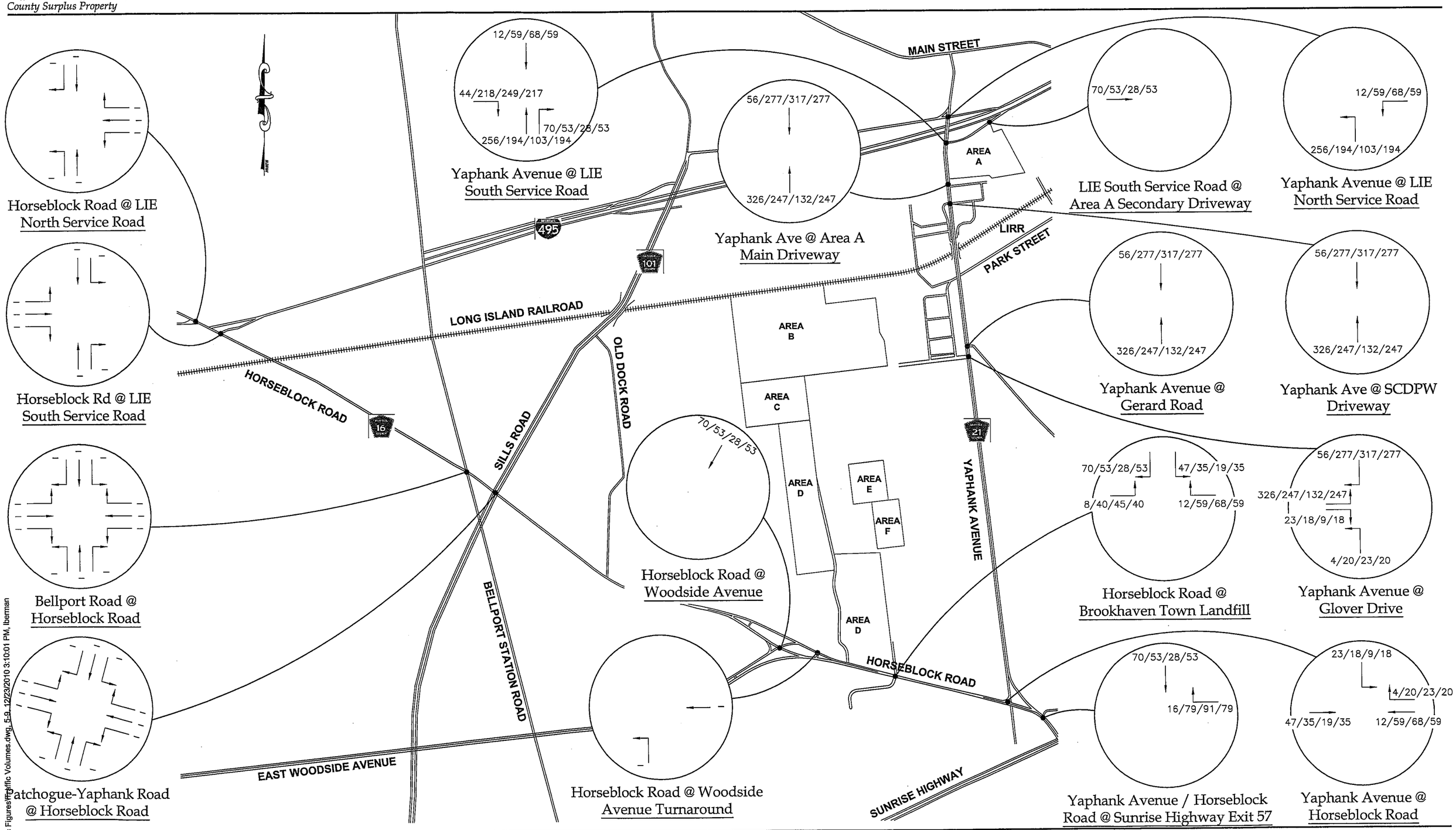

Key: AM/Midday/PM/Saturday

Area B AM, Midday, PM, and Saturday Peak Hour Generated Traffic

Figure No. 5-9

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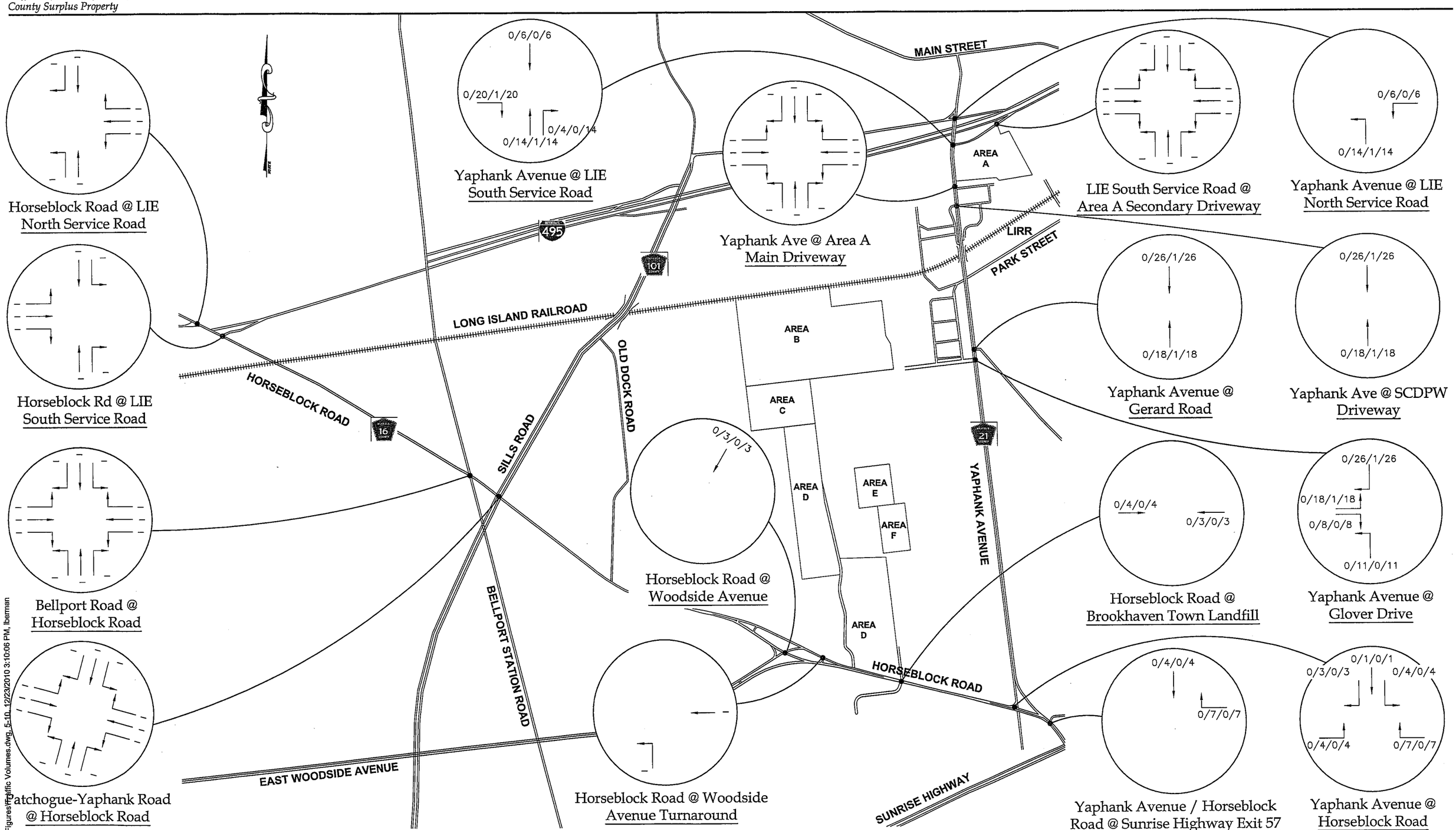

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Area C AM, Midday, PM, and Saturday Peak Hour Generated Traffic

Key: AM/Midday/PM/Saturday

Figure No. 5-10

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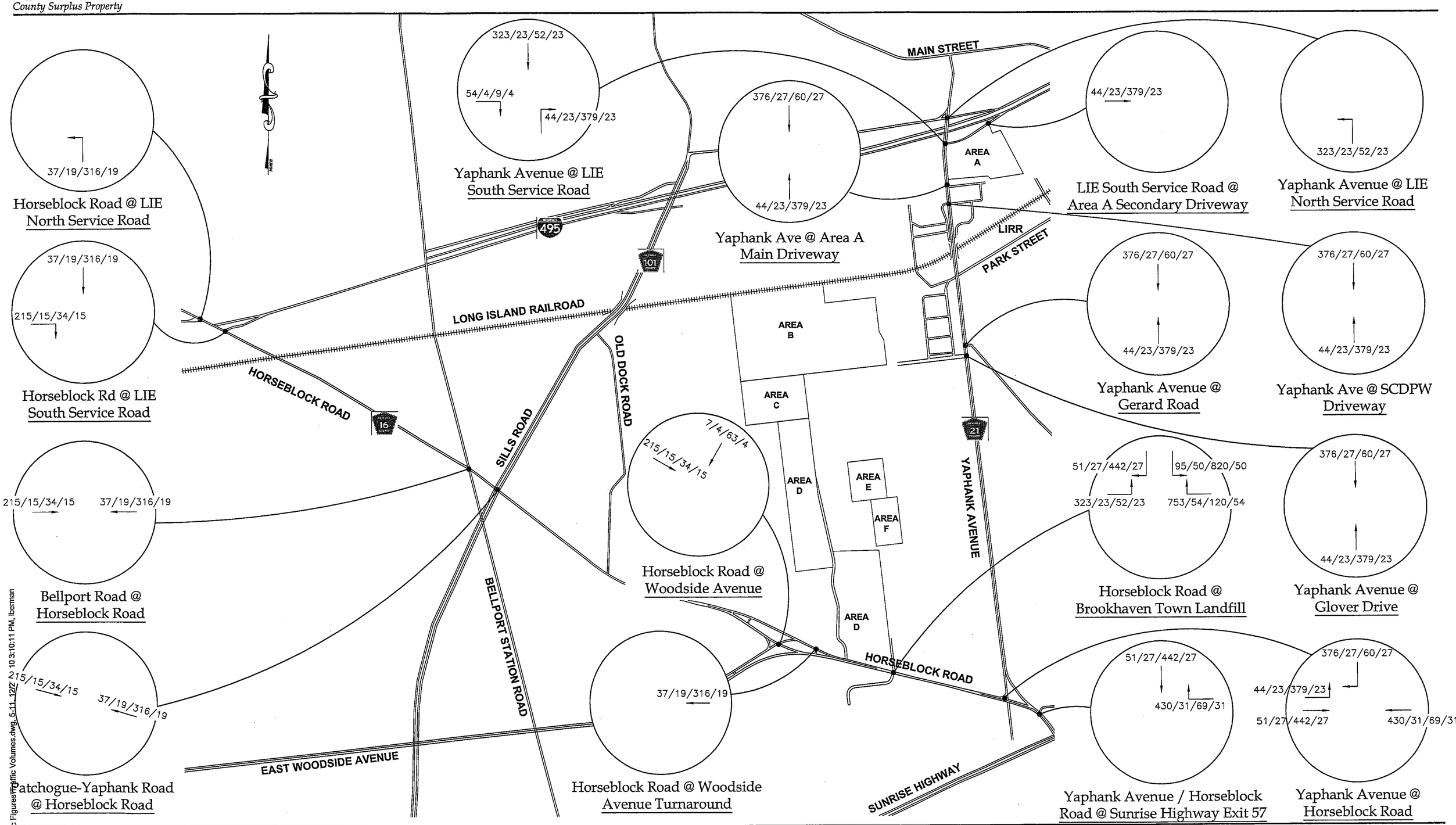

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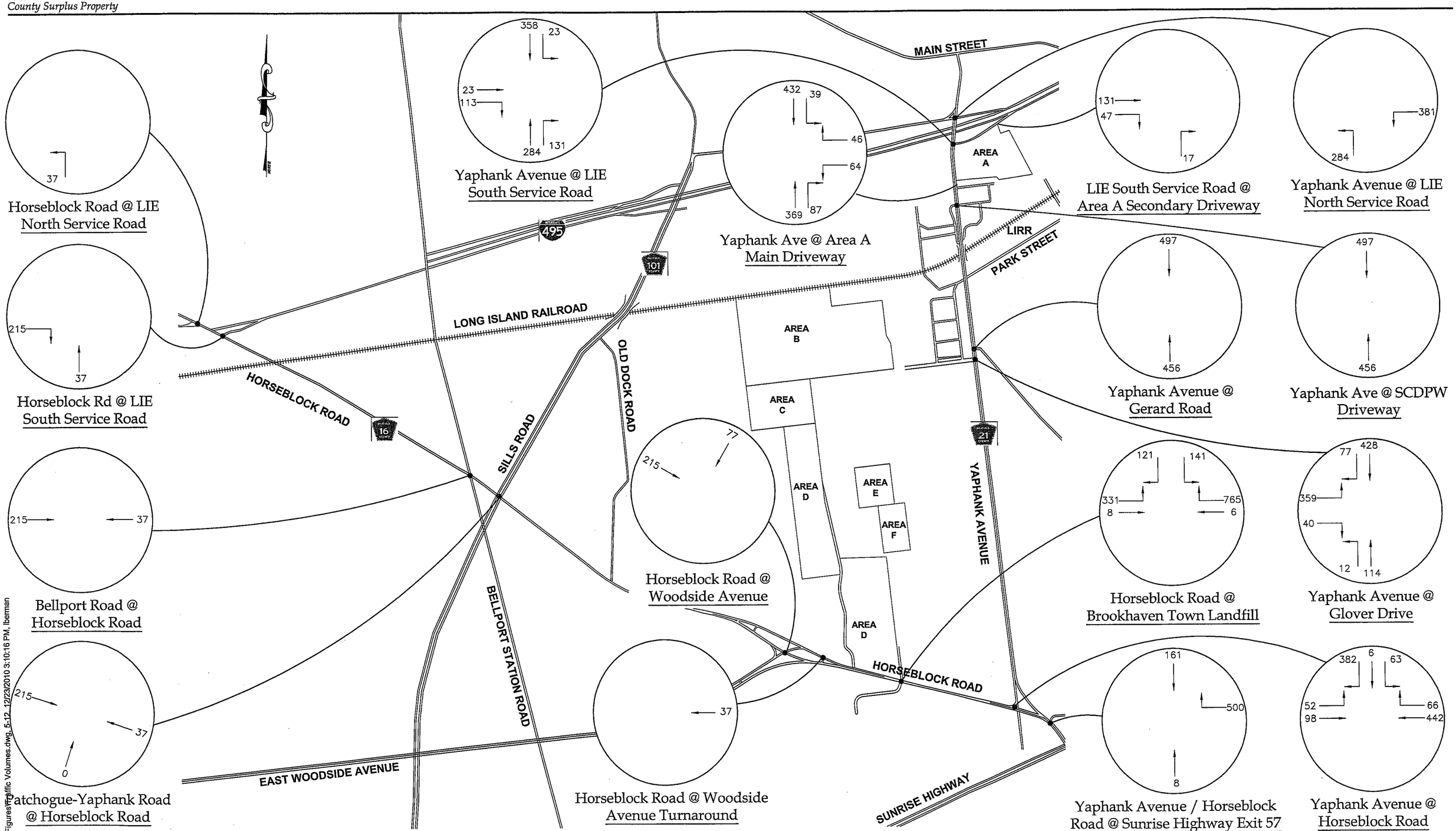
Key: AM/Midday/PM/Saturday

Area D AM, Midday, PM, and Saturday Peak Hour Generated Traffic

Figure No. 5-11



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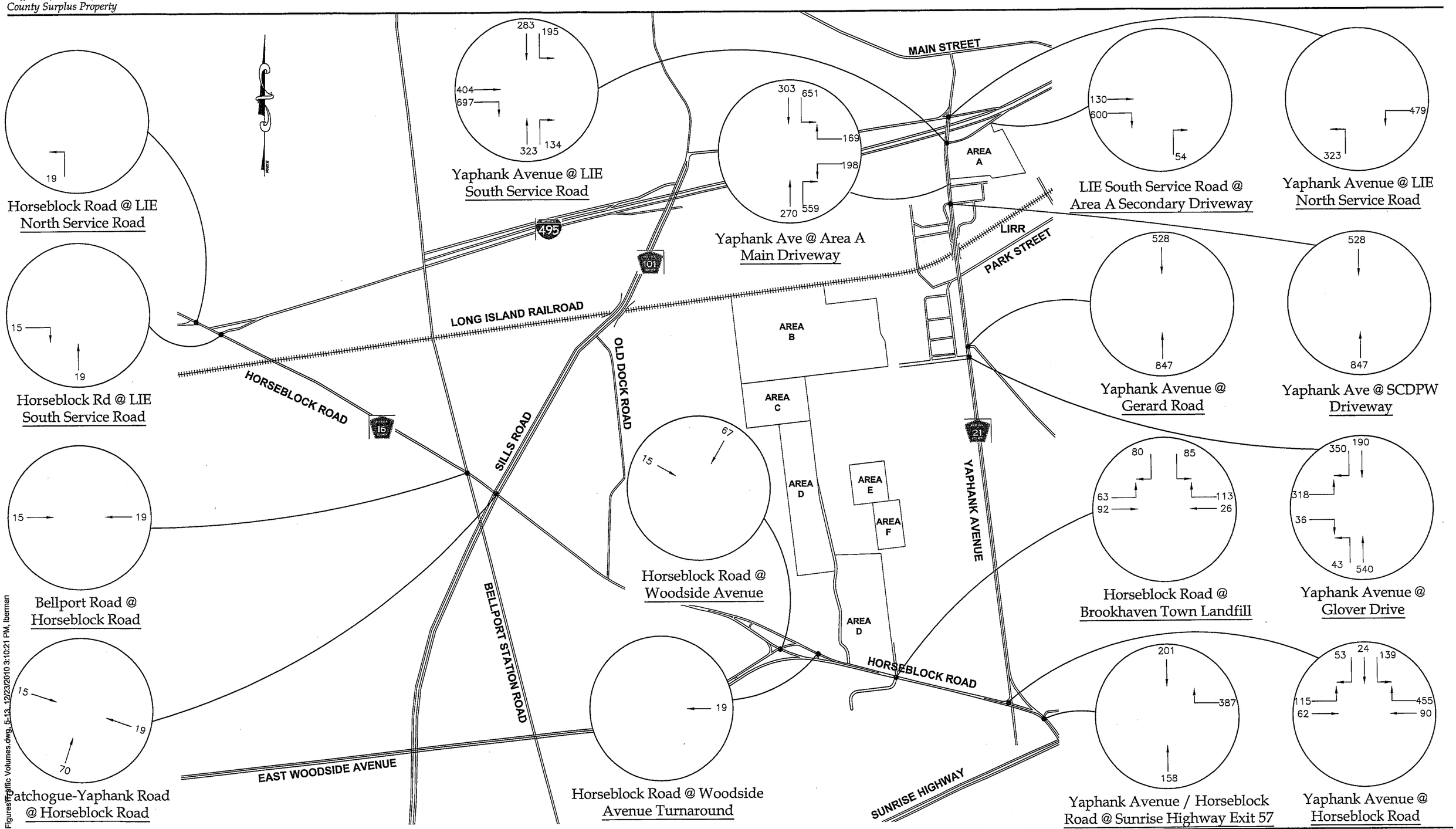
Total AM Peak Hour Site Generated Traffic

Figure No. 5-12



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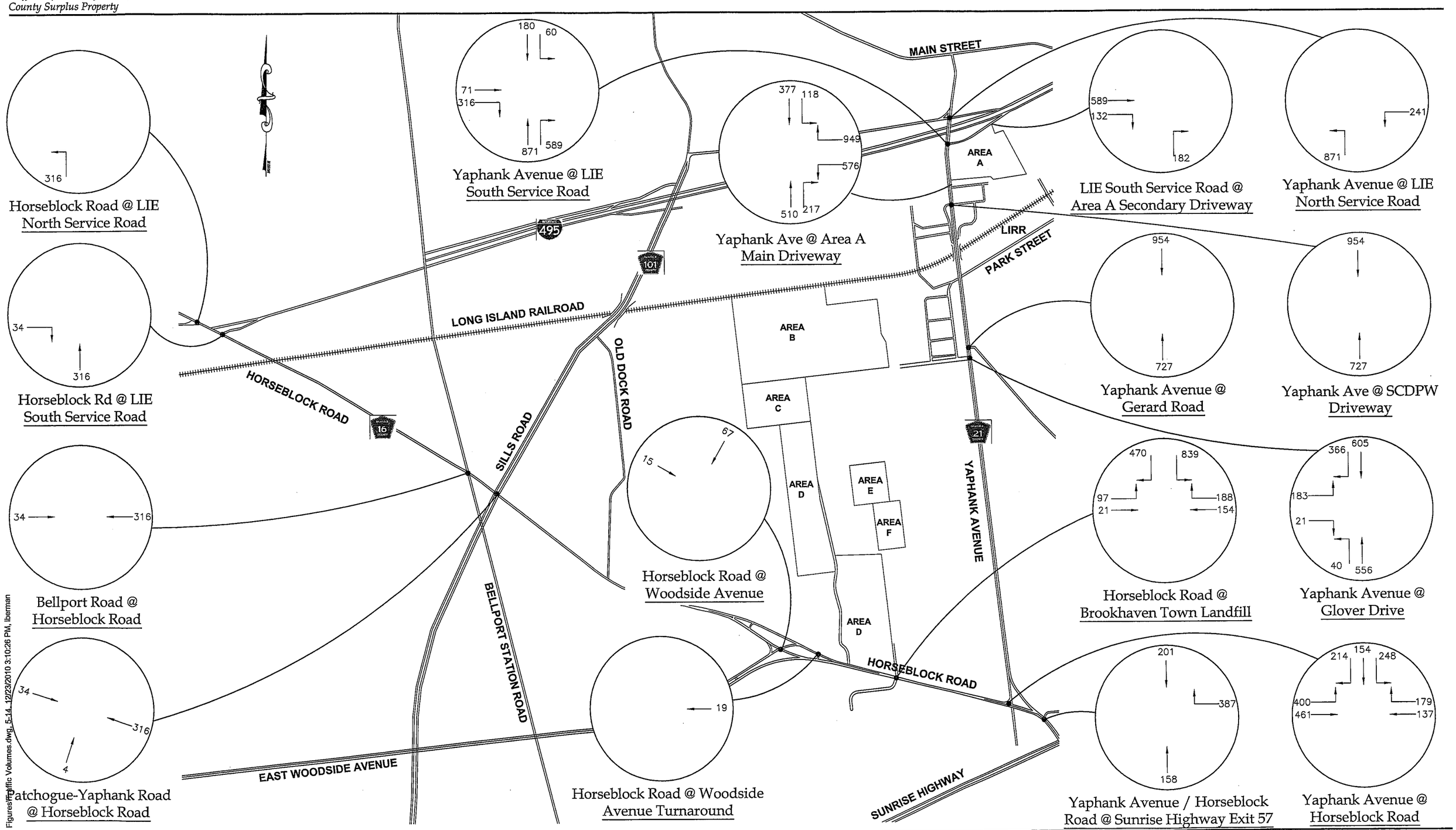
Total Midday Peak Hour Site Generated Traffic

Figure No. 5-13



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Total PM Peak Hour Site Generated Traffic

Figure No. 5-14

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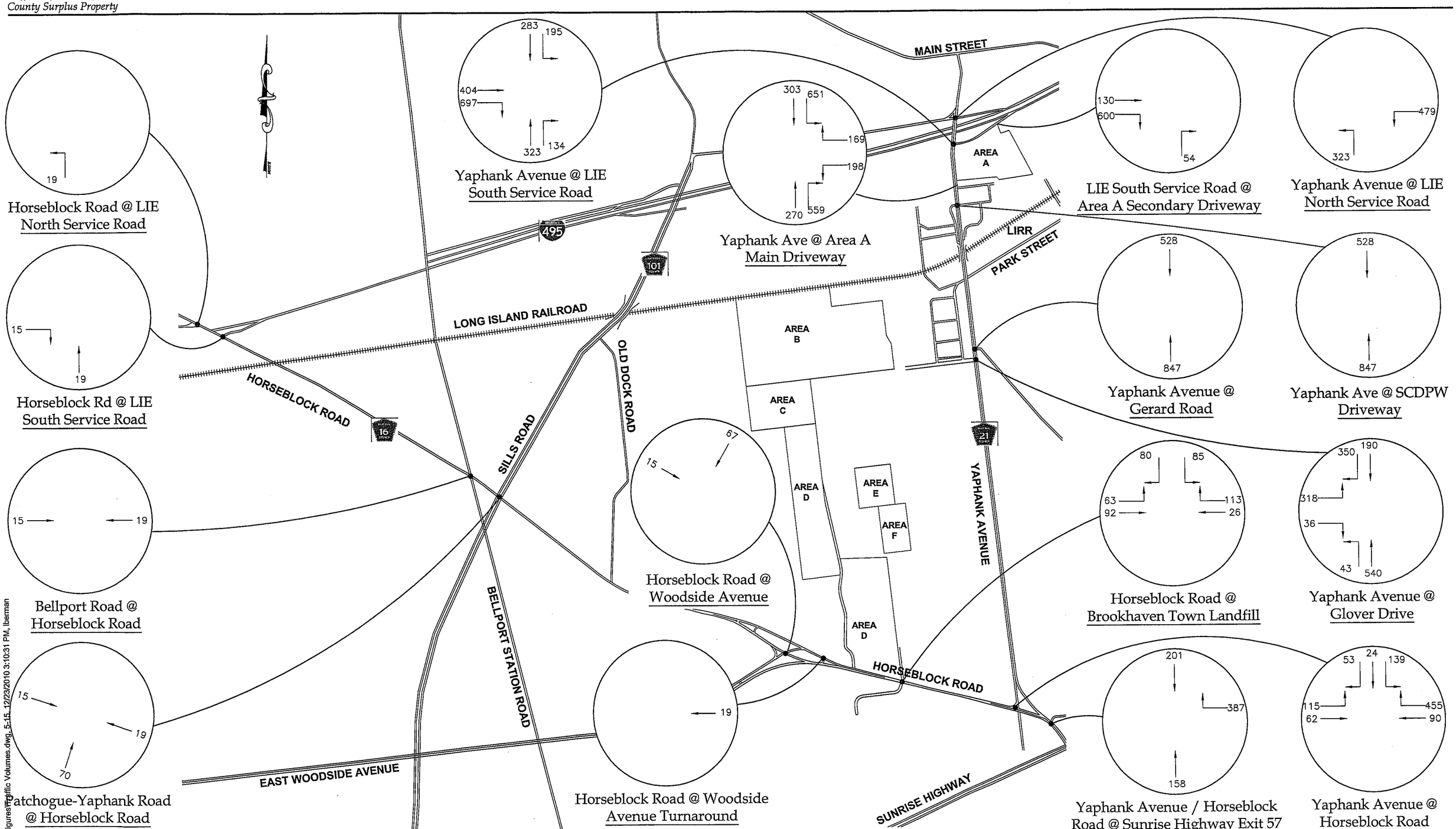

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Total Saturday Peak Hour Site Generated Traffic

Figure No. 5-15

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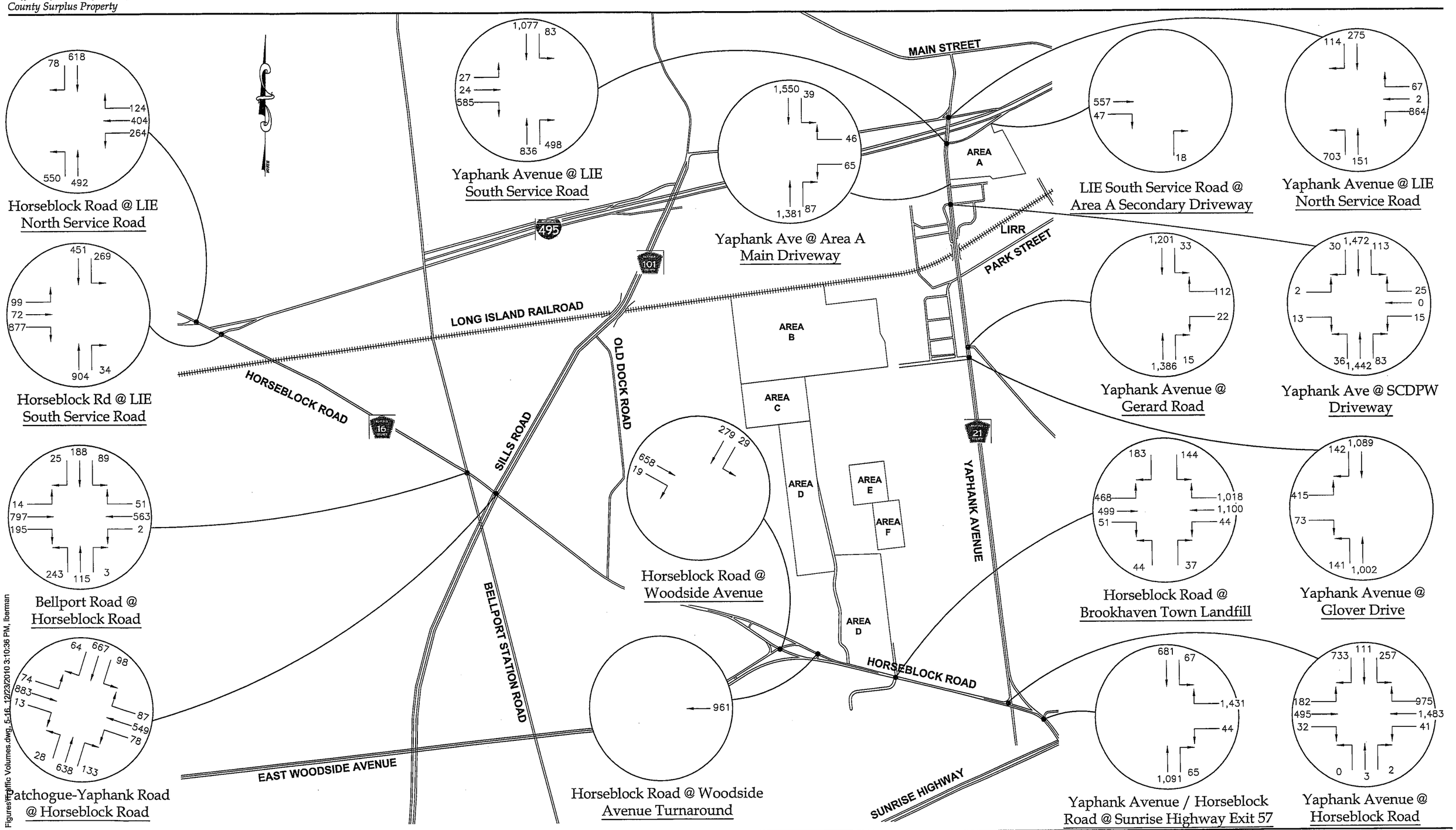

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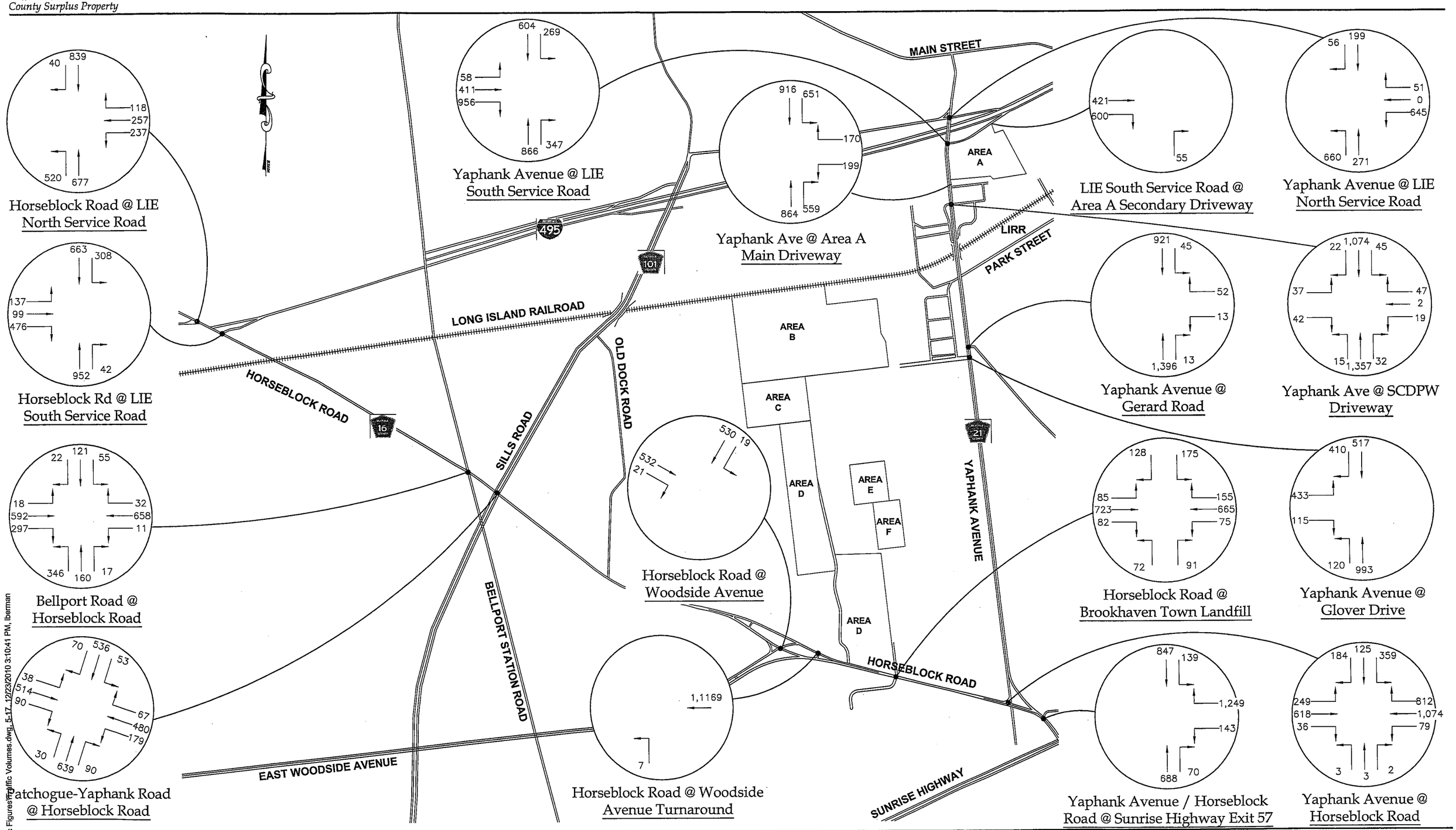
AM Peak Hour Build Volumes

Figure No. 5-16



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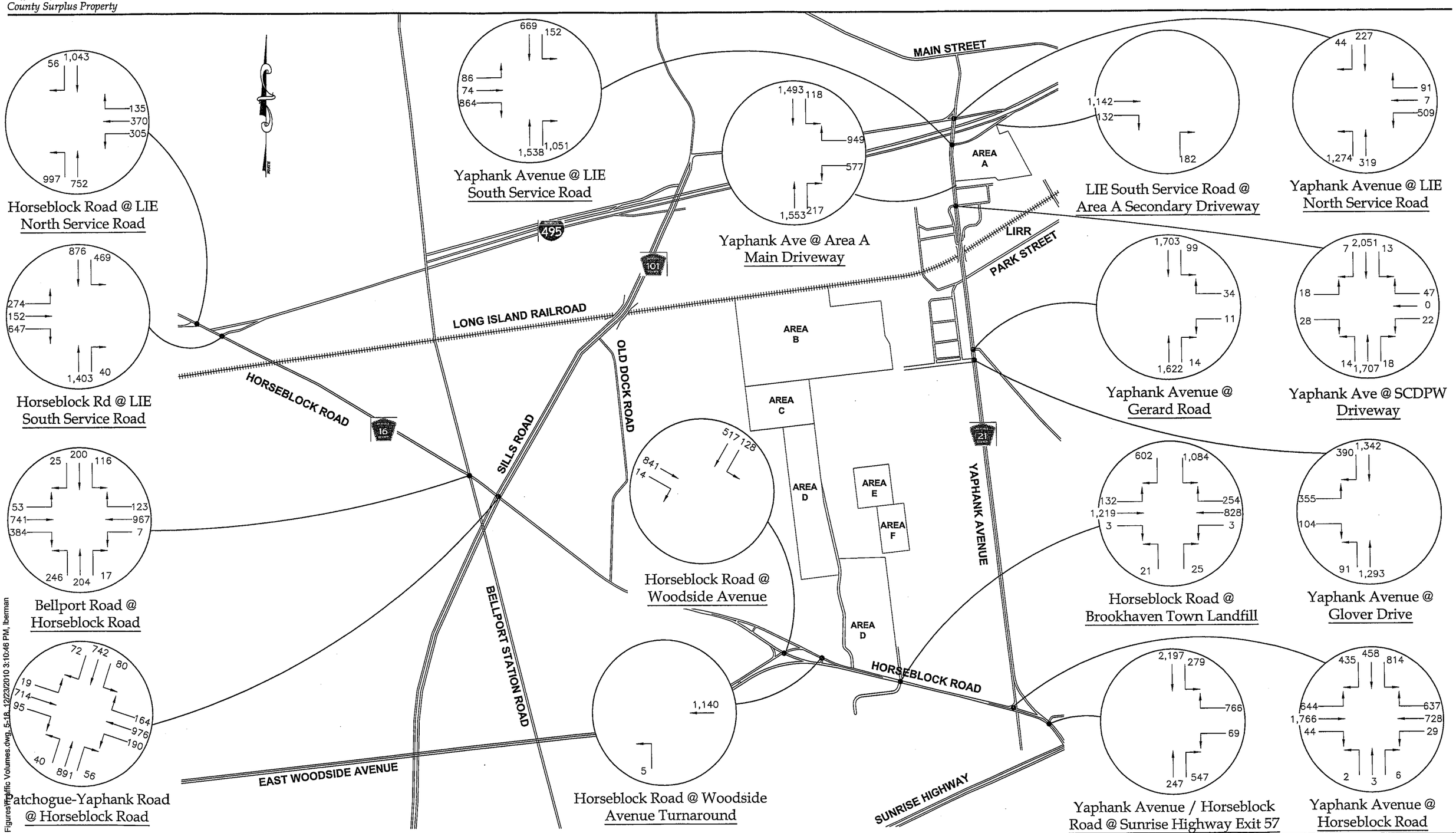
Midday Peak Hour Build Volumes

Figure No. 5-17



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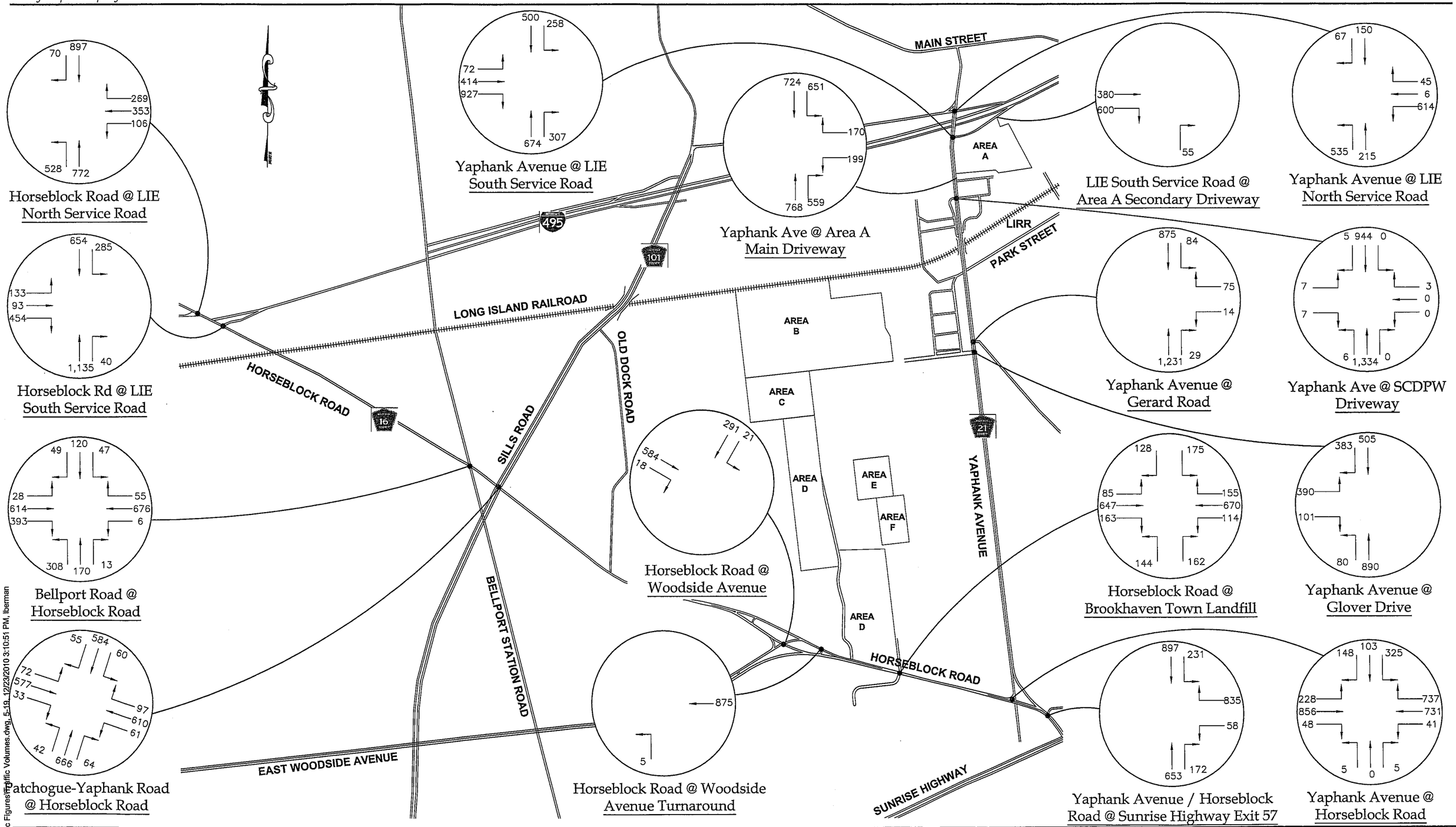
PM Peak Hour Build Volumes

Figure No. 5-18



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Saturday Peak Hour Build Volumes

Figure No. 5-19

6. Traffic Signal Warrants – Yaphank Avenue at Area A Access

6.1 Methodology

Because the projected future peak hour volumes and delays at the Area A Driveway on Yaphank Avenue are relatively high (based on preliminary Build *Synchro* analyses with the intersection unsignalized), a traffic signal warrant analysis was done for this intersection, using the procedures in the National *Manual of Uniform Traffic Control Devices* (MUTCD). This involved examining the intersection volume data, pedestrian volumes, and 85th percentile speeds on Yaphank Avenue.

For the analysis, Yaphank Avenue is considered the major roadway and the Driveway is the side road. Both roads would have two approach lanes in each direction. The 85th percentile speed on Yaphank Avenue was observed to be over 40 mph, given the posted speed limit of 40 mph. The 2025 Build Condition approach volumes are shown in Table 6-1, based on traffic counts, other project trips, and site-generated traffic.

As described earlier in this report, traffic counts were done from 7:00-9:00 am, 11:00 am-2:00 pm, and 4:00-6:00 pm. The volume from 2:00-3:00 pm was interpolated using the same volume as what was counted from 1:00-2:00 pm. This is conservative because SCDPW 24-hour count data on Yaphank Avenue indicates that volumes slightly increased between the 1:00-2:00 and 2:00-3:00 pm timeframes.

Table 6-1: 2025 Build Condition Approach Volumes

Weekday	VEHICLES PER HOUR	
	Yaphank Avenue (total of both approaches)	Area A Site Access (westbound)
7-8 am	2,186	110
8-9 am	2,492	110
11-12 pm	2,674	368
12-1 pm	2,781	368
1-2 pm	2,802	368
3-4 pm (interpolated)	2,802	368
4-5 pm	2,887	1,525
5-6 pm	2,630	1,525

6.2 Warrant 1 – Eight-Hour Vehicular Volume

According to the MUTCD, Warrant 1 (Condition A or Condition B) is satisfied when, for each of any eight hours of an average day, the minimum traffic volumes shaded in Table 6-2 are exceeded on the major street and on the higher-volume minor street approach to the intersection. Table 6-2 shows which Build volumes satisfy either warrant:

Table 6-2: Warrants 1 and 2 Summary

	VEHICLES PER HOUR	
	Yaphank Avenue (total of both approaches)	Area A Site Access
Warrant 1 Condition A	**420**	**140**
Warrant 1 Condition B	*630*	*70*
7-8 am	***2,186***	*110*
8-9 am	***2,492***	*110*
11-12 pm	***2,674***	***368***
12-1 pm	***2,781***	***368***
1-2 pm	***2,802***	***368***
2-3 pm (Interpolated)	***2,802***	***368***
4-5 pm	***2,887***	***1,525***
5-6 pm	***2,630***	***1,525***

Notes: 1. Figures in **bold** meet Condition A. Figures in *italics* meet Condition B.
2. Figures in ***bold italics*** meet both conditions.

The volumes will exceed the minimum volumes for Condition B for all eight hours. Thus, **Warrant 1 is satisfied**.

6.3 Warrant 2 – Four Hour Volume

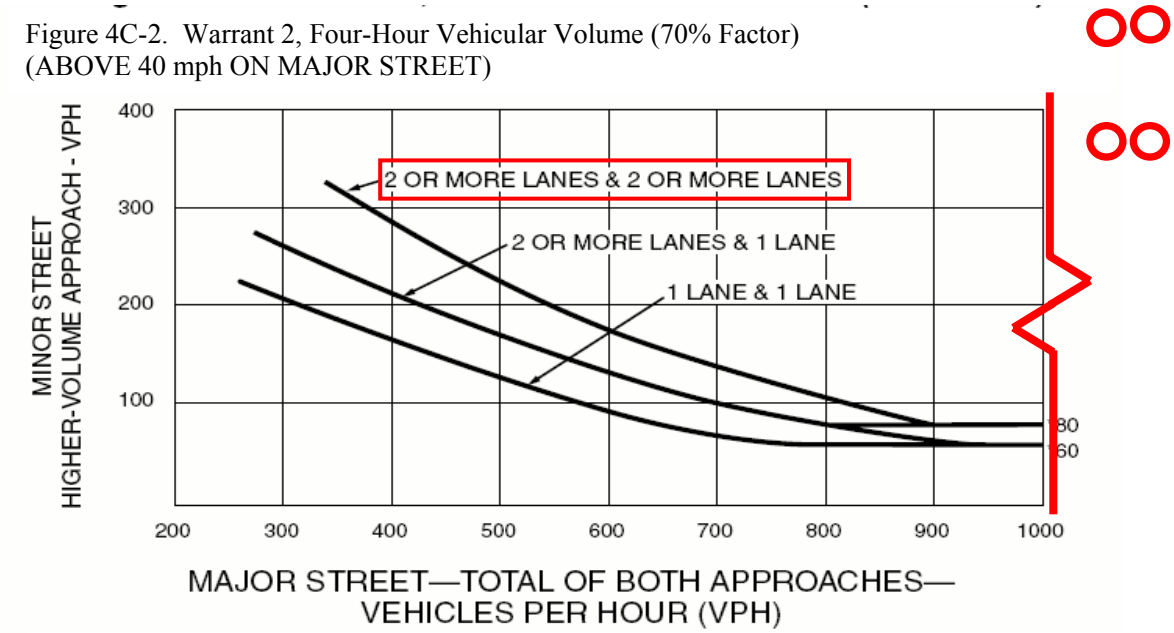
This warrant applies where, for four hours of an average day, the plotted points of the major and side road volumes fall above the applicable curve on [MUTCD] Figure 4C-2 [for major roads with 40+mph prevailing speeds]. As shown in the Figure, each hour's plotted point falls above the appropriate curve in Figure 4C-2. **Thus, Warrant 2 is satisfied.**

Figure 6-1 on the next page indicates the plotted points of the hourly volumes starting at 7:00 am, 8:00 am, 4:00 pm, and 5:00 pm (i.e., based on counted and not interpolated volumes):

TIME	Yaphank Avenue	Driveway
11-12 pm	2,674	368
12-1 pm	2,781	368
4-5 pm	2,887	1,525
5-6 pm	2,630	1,525

As shown in the Figure, each hour's plotted point falls above the appropriate curve in Figure 4C-2. **Thus, Warrant 2 is satisfied.**

Figure 6-1: Figure 4C-2 for Warrant 2



*Note: 80 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 60 vph applies as the lower threshold for a minor street approach with one lane.

6.4 Warrant 3 – Peak Hour Volume

This warrant applies where, for an hour, side road traffic is subject to extreme delays. For one hour (any four consecutive 15-minute periods), either Warrant 3A or 3B must be met:

Warrant 3A:

i. The total stopped time delay on the side street equals or exceeds 4 vehicles hours (1-lane approach) or 5 vehicle-hours (2-lane approach), and
ii. The side street approach has at least 100 vph (1 lane) or 150 vph (2 lanes), and
iii. The total intersection must exceed 650 vph (for T-intersections)

Warrant 3B:

The plotted points of the major and side road volumes fall above the applicable curve on [MUTCD] Figure 4C-4 [for major roads with 40+mph prevailing speeds].

For Warrant 3A, the following conditions will occur in the 5:00-6:00 pm peak hour:

Table 6-3: Warrant 3A

Approach	Lanes	Approach Volume	Approach delay (sec)	Total Delay (veh-hours)	Intersection Volume	Side street delay meets A1?	Approach volume meets A2?	Intersection volume meets A3?
Westbound	2	1,526	> 1,000	423.9	3,296	YES	YES	YES
Northbound	2	1,770					YES	
Southbound	2	1,611					YES	

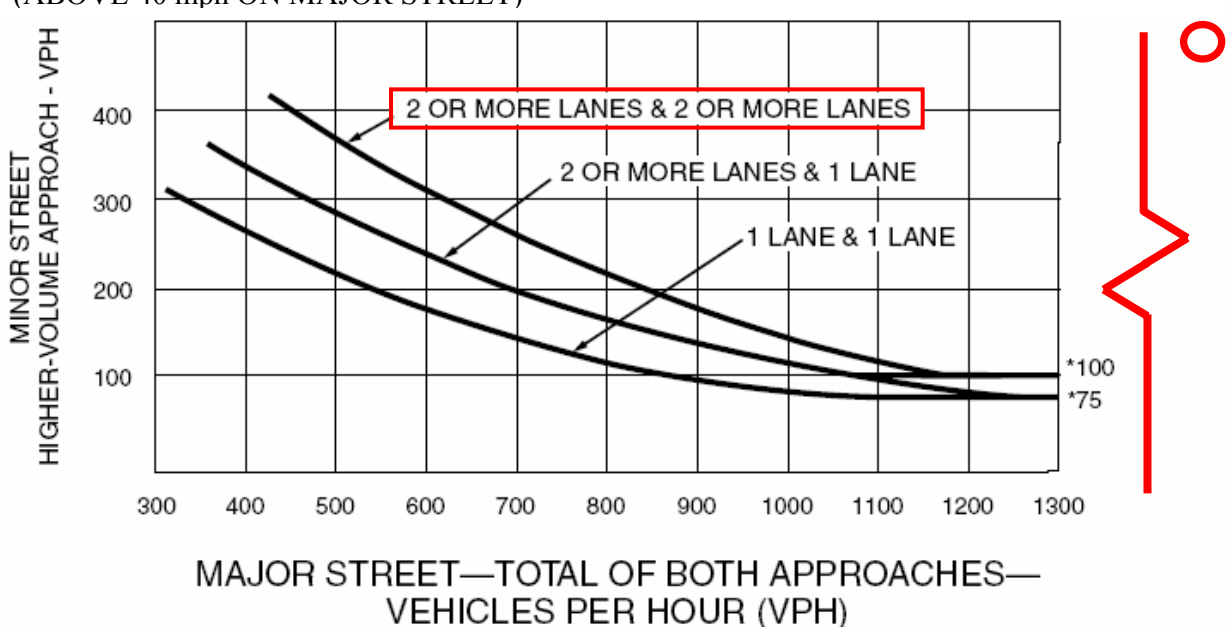
- Driveway vehicle-hours of delay:
  (1,526 vph x 1,000 sec) x $\frac{1 \text{ hour}}{3{,}600 \text{ sec}}$ = *423.06 veh-hours > 5 veh-hours*
- Intersection entering volume is 2,296 vph > 650 vph
- Driveway volume is 1,526 vph > 150 vph

Figure 6-2 indicates the plotted point of the hourly volumes starting at 5:00 pm:

TIME	Yaphank Avenue	Driveway
5-6 pm	2,630	1,525

Figure 6-2: Figure 4C-4 for Warrant 3B

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 75 vph applies as the lower threshold for a minor street approach with one lane.

Each hour's plotted point falls above the appropriate curve in Figure 4C-2. Since Warrants 3A and 3B are both met, **Warrant 3 is satisfied.**

The remaining warrants deal with features that don't apply: pedestrian volume, established school crossings, coordinated signal systems, reduced volumes associated with accident histories, intersections of two "major roads," and intersections near at-grade railroad crossings. Those warrants do not apply and three warrants are already met.

To summarize, Build condition volumes will meet three Warrants: 1, 2, and 3. It is recommended that a traffic signal be installed at this location. The Mitigated Build scenario considered this intersection as being signalized.

7. Traffic Signal Warrants – Sunrise Highway at Exit 57

7.1 Methodology

This intersection likewise has high projected future peak hour volumes and delays. Yaphank Avenue is considered the major road, Exit 57 is considered the side road, and both roads have two approach lanes. The 2025 Build Condition volumes are in Table 7-1. The volume from 2:00-3:00 pm was interpolated using the same level volume from 1:00-2:00 as was done at the Area A site driveway, since the SCDPW 24-hour count data indicates increased volumes on Yaphank Avenue during the 2:00-3:00 time frame.

Table 7-1: 2025 Build Condition Approach Volumes

	Yaphank Avenue (total of both approaches)	Exit 57 (westbound)
7-8 am	2,397	478
8-9 am	2,392	650
11-12 pm	2,977	1,019
12-1 pm	3,062	1,299
1-2 pm	3,043	1,106
2-3 pm Interpolated	2,739	995
4-5 pm	3,251	1,922
5-6 pm	3,334	1,912

7.2 Warrant 1 – Eight-Hour Vehicular Volume

Table 7-2 shows which Build volumes satisfy either warrant:

Table 7-2: Warrants 1 and 2 Summary

	Yaphank Avenue	Exit 57
Warrant 1 Condition A	**420**	**140**
Warrant 1 Condition B	*630*	*70*
7-8 am	***2,397***	***478***
8-9 am	***2,392***	***650***
11-12 pm	***2,977***	***1,019***
12-1 pm	***3,062***	***1,299***
1-2 pm	***3,043***	***1,106***
2-3 pm (Interpolated)	***2,739***	***995***
4-5 pm	***3,251***	***1,922***
5-6 pm	***3,334***	***1,912***

Notes: 1. Figures in **bold** meet Condition A. Figures in *italics* meet Condition B.
2. Figures in ***bold italics*** meet both conditions.

The volumes will exceed the minimum volumes for Condition B for all eight hours. Thus, **Warrant 1 is satisfied**.

7.3 Warrant 2 – Four Hour Volume

Figure 7-1 indicates the plotted points of the hourly volumes starting at 7:00 am, 8:00 am, 4:00 pm, and 5:00 pm (i.e., based on counted and not interpolated volumes):

TIME	Yaphank Avenue	Driveway
11-12 pm	2,977	1,019
12-1 pm	3,062	1,299
4-5 pm	3,251	1,922
5-6 pm	3,334	1,912

As shown in Figure 7-1, each hour's plotted point falls above the appropriate curve in Figure 4C-2. **Thus, Warrant 2 is satisfied.**

Figure 7-1: Figure 4C-2 for Warrant 2

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)

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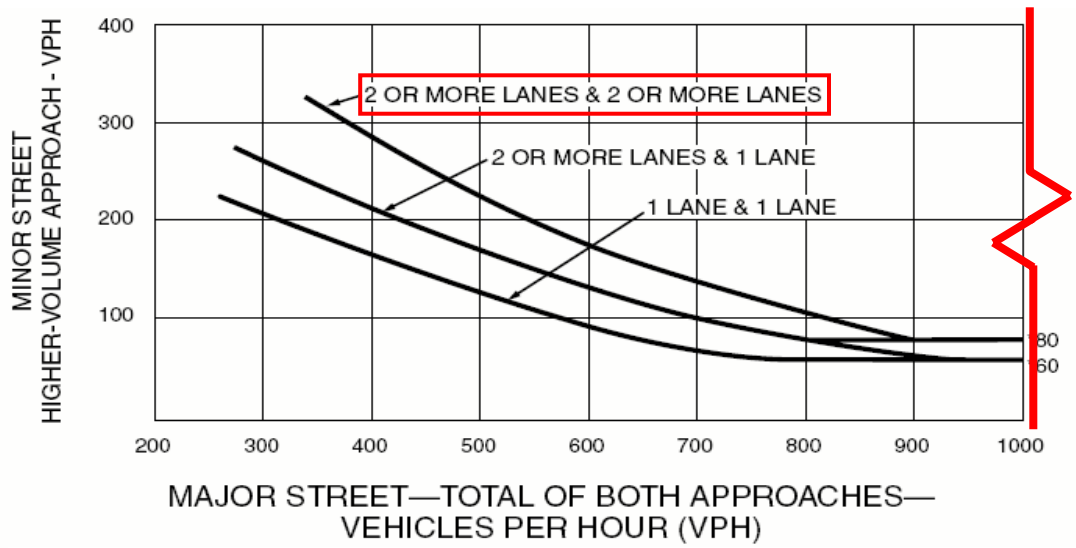


*Note: 80 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 60 vph applies as the lower threshold for a minor street approach with one lane.

7.4 Warrant 3 – Peak Hour Volume

For Warrant 3A, the following conditions will occur in the 5:00-6:00 pm peak hour:

Table 7-3: Warrant 3A

Approach	Approach Volume	Approach delay (sec)	Total Delay (veh-hours)	Intersection Volume	Side street delay meets A1?	Approach volume meets A2?	Intersection volume meets A3?
Westbound	835	254	58.9	4,105	YES	YES	YES
Northbound	794					YES	
Southbound	2,476					YES	

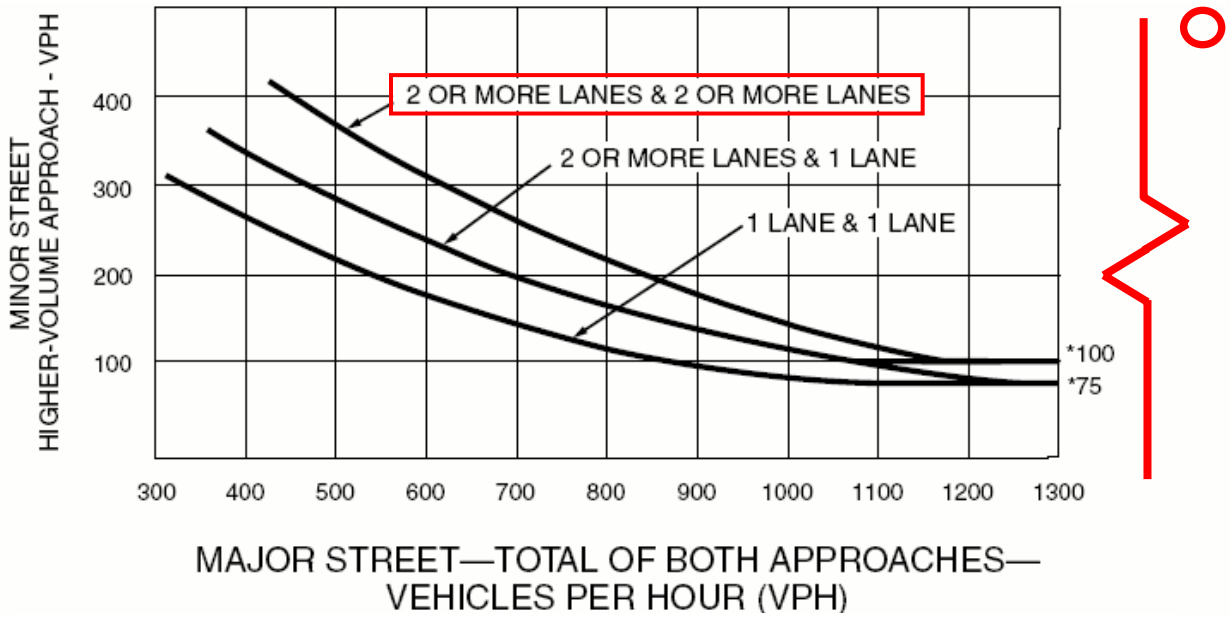
- Exit 57 vehicle-hours of delay:
  (835 vph x 254 sec) x $\frac{1 \text{ hour}}{3{,}600 \text{ sec}}$ = *58.91 veh-hours > 5 veh-hours*
- Intersection entering volume is 4,105 vph > 650 vph
- Exit 57 volume is 835 vph > 150 vph

Figure 6-2 indicates the plotted point of the hourly volumes starting at 5:00 pm:

TIME	Yaphank Avenue	Driveway
5-6 pm	2,630	1,525

Figure 7-2: Figure 4C-4 for Warrant 3B

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 75 vph applies as the lower threshold for a minor street approach with one lane.

Each hour's plotted point falls above the appropriate curve in Figure 4C-2. Since Warrants 3A and 3B are both met, **Warrant 3 is satisfied.**

The remaining warrants do not apply to this intersection.

To summarize, Build condition volumes will meet three Warrants: 1, 2, and 3. It is recommended that a traffic signal be installed at this location. The Mitigated Build scenario considered this intersection as being signalized.

8. Traffic Signal Warrants – Yaphank Avenue at SCDPW Driveway

8.1 Methodology

This intersection likewise has high projected future peak hour volumes and delays. Yaphank Avenue is considered the major road, SCDPW Driveway is considered the side road, and both roads have two approach lanes. The 2025 Build Condition volumes are in Table 8-1. The volume from 2:00-3:00 pm was interpolated using the same level volume from 1:00-2:00 as was done at the Area A site driveway, since the SCDPW 24-hour count data indicates increased volumes on Yaphank Avenue during the 2:00-3:00 time frame.

Table 8-1: 2025 Build Condition Approach Volumes

	Yaphank Avenue (total of both approaches)	SCDPW Driveway (both approaches)
7-8 am	2,255	45
8-9 am	2,592	56
11-12 pm	2,243	97
12-1 pm	2,343	126
1-2 pm	2,384	97
2-3 pm Interpolated	2,145	88
4-5 pm	3,261	195
5-6 pm	3,062	69

8.2 Warrant 1 – Eight-Hour Vehicular Volume

Figure 8-2 shows which Build volumes satisfy either warrant:

Table 8-2: Warrants 1 and 2 Summary

	Yaphank Avenue	SCDPW Driveway
Warrant 1 Condition A	**420**	**140**
Warrant 1 Condition B	*630*	*70*
7-8 am	***2,255***	45
8-9 am	***2,592***	56
11-12 pm	***2,243***	*97*
12-1 pm	***2,343***	*126*
1-2 pm	***2,384***	*97*
2-3 pm (Interpolated)	***2,145***	*88*
4-5 pm	***3,261***	*195*
5-6 pm	***3,062***	*69*

Notes: 1. Figures in **bold** meet Condition A. Figures in *italics* meet Condition B.
2. Figures in ***bold italics*** meet both conditions.

The volumes will not exceed the minimum volumes for Condition B for all eight hours. Thus, **Warrant 1 is not satisfied**.

8.3 Warrant 2 – Four Hour Volume

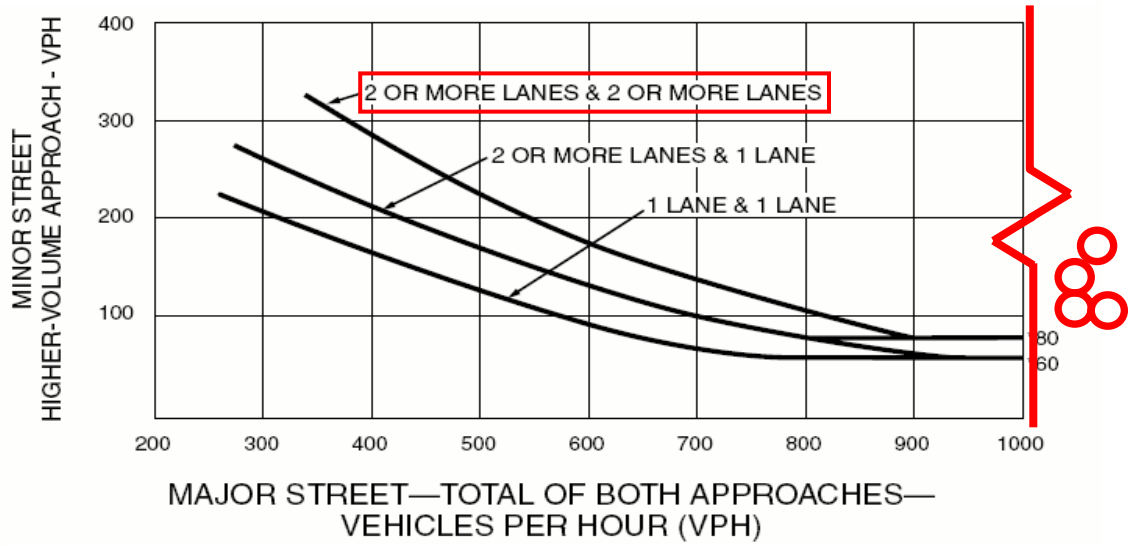
Figure 8-1 indicates the plotted points of the hourly volumes starting at 7:00 am, 8:00 am, 4:00 pm, and 5:00 pm (i.e., based on counted and not interpolated volumes):

TIME	Yaphank Avenue	Driveway
11-12 pm	2,243	97
12-1 pm	2,343	126
1-2 pm	2,384	97
4-5 pm	3,261	195

As shown in Figure 8-1, each hour's plotted point falls above the appropriate curve in Figure 4C-2. **Thus, Warrant 2 is satisfied.**

Figure 8-1: Figure 4C-2 for Warrant 2

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 60 vph applies as the lower threshold for a minor street approach with one lane.

8.4 Warrant 3 – Peak Hour Volume

For Warrant 3A, the following conditions will occur in the 7:00-8:00 pm peak hour:

Table 8-3: Warrant 3A

Approach	Approach Volume	Approach delay (sec)	Total Delay (veh-hours)	Intersection Volume	Side street delay meets A1?	Approach volume meets A2?	Intersection volume meets A3?
Eastbound	15	1,584	6.60	1,576	YES	NO	YES
Northbound	1,561					YES	
Southbound	1,615					YES	

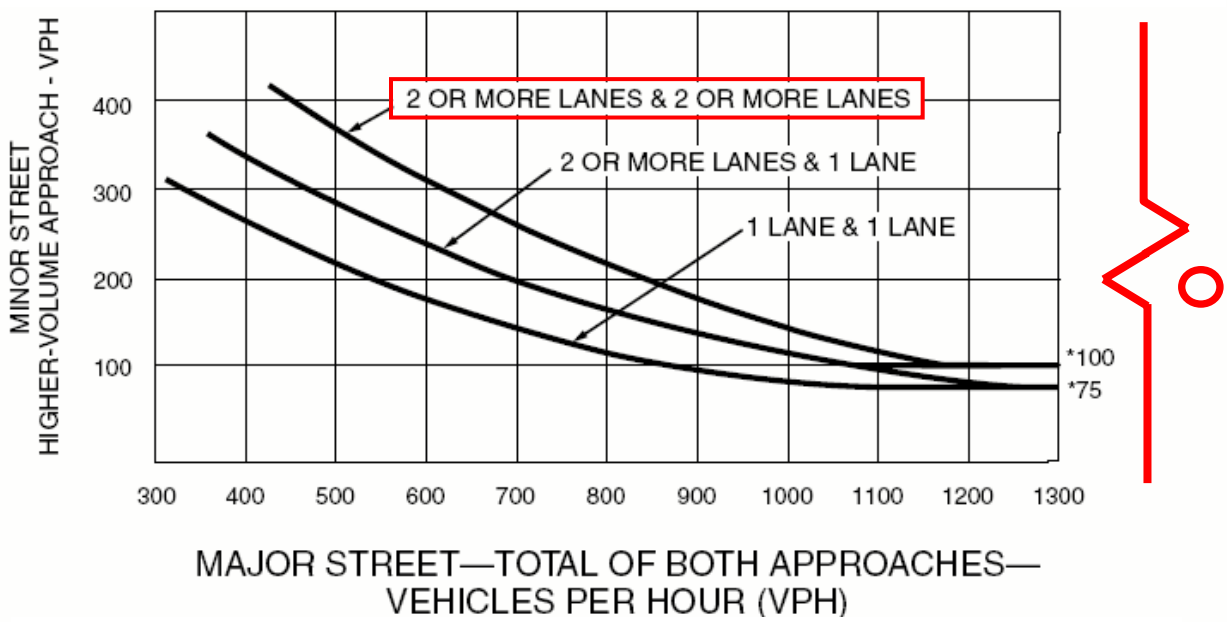
- SCDPW Driveway vehicle-hours of delay:
  (15 vph x 1,584 sec) x $\frac{1 \text{ hour}}{3{,}600 \text{ sec}}$ = *6.60 veh-hours > 5 veh-hours*
- Intersection entering volume is 1,576 vph > 650 vph
- SCDPW Driveway volume is 15 vph > 150 vph

Figure 8-2 indicates the plotted point of the hourly volumes starting at 4:00 pm:

TIME	Yaphank Avenue	SCDPW Driveway
4-5 pm	3,261	195

Figure 8-2: Figure 4C-4 for Warrant 3B

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 75 vph applies as the lower threshold for a minor street approach with one lane.

Each hour's plotted point falls above the appropriate curve in Figure 4C-2. Since Warrant 3B is met, **Warrant 3 is satisfied.**

The remaining warrants do not apply to this intersection.

To summarize, Build condition volumes will meet two Warrants: 2, and 3. It is recommended that a traffic signal be installed at this location. The Mitigated Build scenario considered this intersection as being signalized.

9. Traffic Signal Warrants – Yaphank Avenue at Glover Drive

9.1 Methodology

This intersection likewise has high projected future peak hour volumes and delays. Yaphank Avenue is considered the major road, Glover Drive is considered the side road, and both roads have two approach lanes. The 2025 Build Condition volumes are in Table 9-1. The volume from 2:00-3:00 pm was interpolated using the same level volume from 1:00-2:00 as was done at the Area A site driveway, since the SCDPW 24-hour count data indicates increased volumes on Yaphank Avenue during the 2:00-3:00 time frame.

Table 9-1: 2025 Build Condition Approach Volumes

	Yaphank Avenue (total of both approaches)	Glover Drive (eastbound)
7-8 am	1,620	473
8-9 am	1,766	483
11-12 pm	1,746	511
12-1 pm	854	545
1-2 pm	1,899	512
2-3 pm Interpolated	1,709	461
4-5 pm	2,661	457
5-6 pm	2,535	350

9.2 Warrant 1 – Eight-Hour Vehicular Volume

Figure 9-2 shows which Build volumes satisfy either warrant:

Table 9-2: Warrants 1 and 2 Summary

	Yaphank Avenue	SCDPW Driveway
Warrant 1 Condition A	**420**	**140**
Warrant 1 Condition B	*630*	*70*
7-8 am	***1,620***	***473***
8-9 am	***1,766***	***483***
11-12 pm	***1,746***	***511***
12-1 pm	***854***	***545***
1-2 pm	***1,899***	***512***
2-3 pm (Interpolated)	***1,709***	***461***
4-5 pm	***2,661***	***457***
5-6 pm	***2,535***	***350***

Notes: 1. Figures in **bold** meet Condition A. Figures in *italics* meet Condition B.
2. Figures in ***bold italics*** meet both conditions.

The volumes will exceed the minimum volumes for Condition B for all eight hours. Thus, **Warrant 1 is satisfied**.

9.3 Warrant 2 – Four Hour Volume

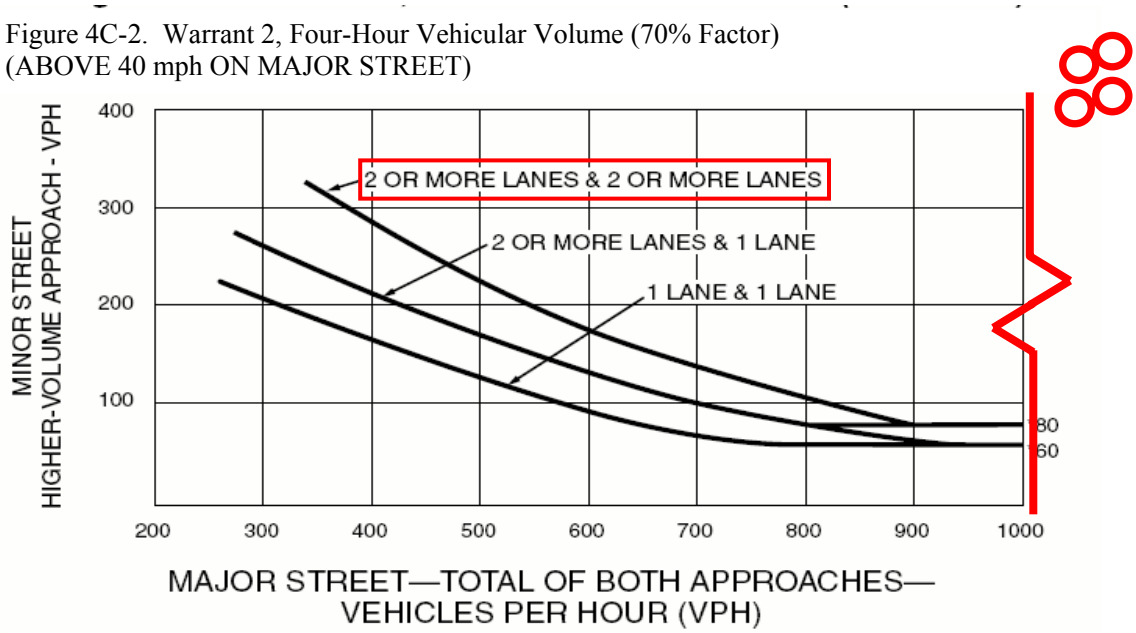
Figure 9-1 indicates the plotted points of the hourly volumes starting at 7:00 am, 8:00 am, 4:00 pm, and 5:00 pm (i.e., based on counted and not interpolated volumes):

TIME	Yaphank Avenue	Driveway
8-9 am	1,766	483
11-12 pm	1,746	511
12-1 pm	854	545
1-2 pm	1,899	512

As shown in Figure 9-1, each hour's plotted point falls above the appropriate curve in Figure 4C-2. **Thus, Warrant 2 is satisfied.**

Figure 9-1: Figure 4C-2 for Warrant 2

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 60 vph applies as the lower threshold for a minor street approach with one lane.

9.4 Warrant 3 – Peak Hour Volume

For Warrant 3A, the following conditions will occur in the 7:00-8:00 pm peak hour:

Table 9-3: Warrant 3A

Approach	Approach Volume	Approach delay (sec)	Total Delay (veh-hours)	Intersection Volume	Side street delay meets A1?	Approach volume meets A2?	Intersection volume meets A3?
Eastbound	459	999	127.4	1,843	YES	YES	YES
Northbound	1,384					YES	
Southbound	1,732					YES	

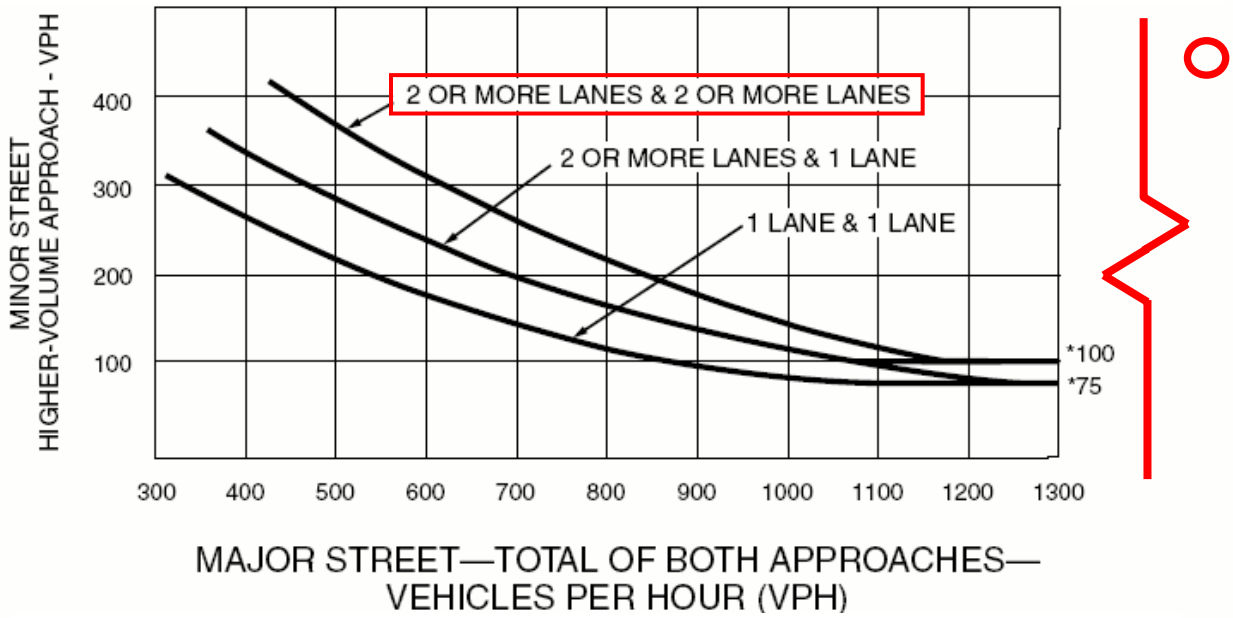
- Glover Drive vehicle-hours of delay:
  (459 vph x 999 sec) x $\frac{1 \text{ hour}}{3{,}600 \text{ sec}}$ = *127.4 veh-hours > 5 veh-hours*
- Intersection entering volume is 1,843 vph > 650 vph
- Glover Drive volume is 459 vph > 150 vph

Figure 9-2 indicates the plotted point of the hourly volumes starting at 4:00 pm:

TIME	Yaphank Avenue	SCDPW Driveway
4-5 pm	2,661	457

Figure 9-2: Figure 4C-4 for Warrant 3B

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 75 vph applies as the lower threshold for a minor street approach with one lane.

Each hour's plotted point falls above the appropriate curve in Figure 4C-2. Since Warrants 3A and 3B are met, **Warrant 3 is satisfied.**

The remaining warrants do not apply to this intersection.

To summarize, Build condition volumes will meet three Warrants: 1, 2, and 3. It is recommended that a traffic signal be installed at this location. The Mitigated Build scenario considered this intersection as being signalized.

10. Assessing Impact: No Build vs. Build Scenario Levels of Service

The next step of this report was to determine the Build condition levels of service. Any traffic impacts are gauged by the genuine differences between the No Build and Build levels of service. Any movement or intersection not discussed below is projected to operate at LOS D or better, which denotes acceptable peak hour traffic flow.

Appendix C contains the future level of service summaries, while the actual worksheets are in Appendix L. All mitigation proposals are further elaborated in the "Mitigation Summary" section that follows.

10.1 Yaphank Avenue (CR 21) at LIE North Service Road

There will be several LOS grade changes in all the peak periods. The PM overall intersection will change from LOS A to F with a 270 second delay increase. The westbound approach will change from LOS C to F in the AM peak period with a 60 second delay increase. The northbound left turn movement will change from LOS C in the AM and LOS A in the Midday and PM, to LOS F with varying increases in delay.

It is recommended that the northbound approach be widened to include a second northbound left turn lane. With this improvement in place, each turning movement will operate LOS D or better in all peak periods.

10.2 Yaphank Avenue (CR 21) at LIE South Service Road

During the Midday, PM, and Saturday peak hours periods, the overall intersection will change from LOS A and C's to LOS F, with a minimum delay increase of 115 seconds. The eastbound right turn is projected to operate at LOS F in all peak periods. The eastbound left-through movement will change from LOS C to E with a 50 second delay increase in the midday period, and from LOS C to F with a 103 second delay increase in the Saturday peak period. The northbound through movement will change from LOS C to E in the AM peak period with a 60 second delay increase, and from LOS C to F in the PM peak period with a 560 second delay increase. The PM northbound right turn and the Saturday southbound left turn will change from LOS A to F.

It is recommended that the eastbound approach be widened to include a second eastbound right turn lane, and the northbound approach be widened to include a second northbound through lane.

10.3 Yaphank Avenue at SCDPW Driveway (#335)

The eastbound approach is expected to operate at LOS F in all peak periods except during the Saturday peak period. The westbound approach is also projected to operate at LOS F during each period, except for the Saturday peak period, where it will operate at LOS E.

It is recommended that this intersection be signalized, and the northbound approach be widened to include a second northbound through lane. With these changes in place, every movement will operate at LOS D or better.

10.4 Yaphank Avenue at Gerard Road

The westbound approach is projected to change from LOS E, C, and B to LOS F during the AM, PM, and Saturday peak periods, respectively. During the Midday peak hour, the westbound approach will operate at LOS E, changed from LOS B.

As will be mentioned at the following intersection, it is proposed to widen Yaphank Avenue at Glover Drive for both the north and southbound approaches. Since both intersections are relatively close at less than 400 feet apart, it is proposed that this intersection be widened at both approaches also. Following the construction of the two through lanes, all turning movements at this intersection will operate at LOS D or better.

10.5 Yaphank Avenue at Glover Drive

The overall intersections will operate at LOS F during each peak period with a maximum delay experienced of 1,675 seconds per vehicle, while first operating at LOS A for the Mitigated No Build scenario. This is mainly due to the eastbound left turn operating at LOS F during each peak period, with the smallest delay experienced by each vehicle at 500 seconds in the Saturday peak period

It is recommended that this intersection be signalized and the northbound and southbound approaches be widened to include an additional through lane in each direction. In addition, a second eastbound left turn is proposed to be constructed. With these changes in place, each movement will operate at LOS D or better.

10.6 Yaphank Avenue at Horseblock Road (CR 16)

The PM overall intersection will change from LOS D to F with a 180 second delay increase. The AM westbound through right movement will change from LOS B to F with a 70 second delay increase. The PM eastbound left and through movements will operate at LOS F in the Build condition, while first operating at LOS C and D, respectively.

It is recommended that an additional left turn lane be constructed for the southbound and eastbound approaches. In addition, the southbound approach should restriped to provide: 2 southbound left turns, 1 southbound through-right, and 1 southbound right turn lanes. With these changes in place, each movement will operate at LOS D or better.

10.7 Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57

The overall intersection will operate at LOS F in the AM and Midday peak periods, and at LOS E in the Saturday peak period. This is mainly attributed to the westbound right turn operating at LOS F in all three periods, with projected delays at 615, 342 and 159 seconds per vehicle, respectively.

It is recommended that a second westbound left turn lane be constructed at this location. With this change in place, every movement is expected to operate at LOS D or better, with the exception of the AM westbound right turn movement. The 2025 Mitigated No Build LOS indicates the movement operating at LOS F with 255 seconds of delay prior to construction of the proposed development. It is not the responsibility of the proposed development to mitigate an existing LOS F for this movement. No further attention is necessary at this location.

10.8 Horseblock Road at Woodside Avenue (CR 99)

This intersection will not be affected by the proposed development. Every movement will maintain their Mitigated No Build LOS, with each movement operating at LOS C or better, which indicates excellent peak hour traffic flow. No mitigation is necessary at this location.

10.9 Horseblock Road at Brookhaven Town Landfill

The AM overall intersection will change from LOS A to F with a 92 second delay increase. Several turning movements will operate at LOS F in the Build condition. The AM eastbound left changes from LOS C to F with a 590 second delay increase. The AM and PM southbound left turn changes from LOS D to F. The PM southbound through changes from LOS A to F, with no anticipated traffic from the proposed development.

It is recommended that a left turn lane be constructed for the eastbound and southbound approaches. In addition, the westbound approach should be widened to include an additional through lane and a second right turn lane. With these changes in place, every movement will operate at LOS D.

10.10 Horseblock Road at Patchogue-Yaphank Road (CR 101)

The AM overall intersection will change from LOS D to E with a delay increase of 40 seconds per vehicle. This is mainly attributed to the eastbound (CR 16) through traffic changing LOS from E to F with a 130 second delay increase. In the PM peak hour, the westbound (CR 16) through traffic changes from LOS D to F with a 150 second delay increase. The PM overall intersection changes from E to F based on this turning movement.

It is recommended that the eastbound and westbound (CR 16) approaches both be widened to include one additional through lane. With these changes in place every movement will operate at LOS D or better, with the exception of the PM westbound left turn movement. As mentioned in Section 10.7, it is not the proposed development's responsibility to mitigate an existing LOS F condition. The PM westbound left turn Mitigated No Build scenario operated at LOS F at 104 seconds of delay. The Mitigated Build will operate at LOS E. No further attention is required at this location.

10.11 Horseblock Road at Bellport Road

The AM and PM eastbound left turn will operate at LOS F in the Build conditions, with delay increases of 83 and 840 seconds, respectively. The PM westbound left turn will change from LOS C to F with a 68 second delay increase. The PM overall intersection changes from LOS E to F with a delay increase of 226 seconds per vehicle.

It is recommended that an additional through lane be constructed for the eastbound and westbound approaches. With these changes in place, most movements will operate at or better than LOS D. The Midday, PM, and Saturday northbound approach will continue to operate at LOS F. As mentioned previously, it is not the proposed development's responsibility to mitigate an existing LOS F condition based on its Mitigated No Build LOS. No further is required at this location.

10.12 Horseblock Road at LIE North Service Road

The AM and PM northbound left changes from LOS E to F with delay increases of 22 and 190 seconds, respectively. The PM overall intersection is expected to change from LOS D to F with a 46 second delay increase per vehicle.

It is recommended that a northbound left turn lane be constructed at this intersection. With this change in place, every intersection will operate at LOS D or better.

10.13 Horseblock Road at LIE South Service Road

The northbound through-right movement will operate at LOS F in all peak periods. It should be noted that the Mitigated No Build LOS for this movement also operates at LOS F. However, due to delay increases of 200 seconds in the PM peak hour, mitigation measures will be recommended for the proposed development. In addition, the eastbound right turn will operate at LOS F in the AM and PM peak periods, at the same LOS as its Mitigated No Build LOS.

10.14 Yaphank Avenue at Area A Main Driveway

As mentioned previously in this report, specific site access information is unplanned at this time, and will be based on the findings of this report. Based on the Build analyses, a proposed intersection geometry at this location was determined, which allowed all turning movements to operate at LOS D or better. The specific site driveway geometry will be described in Section 11.

10.15 LIE South Service Road and Area A Secondary Driveway

As previously mentioned, information regarding this site access will be based on the findings of this report. The Build analyses indicate that this site driveway will operate well with minimal delays through all periods, except for the PM peak period. In the PM peak period, the driveway is expected to operate at LOS F with 91 seconds of delay per vehicle. This estimate is based on a conservative estimate of the critical gap, the minimum amount of time necessary for one vehicle to enter the traffic stream. Reducing this critical gap by 0.5 seconds, from 6.2 seconds to 5.7 seconds, yields delays of 55 seconds per vehicle. Coupled with the adjacent signalized intersection at Yaphank Avenue-LIE South Service Road, which allows for platoons of vehicles followed by periods without any traffic, and it can be concluded that the projected LOS is very conservative.

The resulting site driveway geometry from the Build analyses will be described in Section 11.

Level of Service for Signalized Intersection - Yaphank Avenue (CR 21) at LIE North Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
WB Approach	22.5	0.45	C	26.0	1.15	C	85.4	1.91	F	26.9	1.49	C
Northbound Left	4.7	0.31	A	23.5	0.84	C	231.4	1.47	F	23.1	0.83	C
Through	1.8	0.10	A	1.4	0.18	A	1.1	0.19	A	2.6	0.22	A
SB Approach	6.5	0.16	A	10.9	0.28	B	11.4	0.30	B	48.3	0.89	D
INTERSECTION	*9.7*		*A*	*18.9*		*B*	*113.6*		F	*27.8*		C

Midday Peak Hour

WB Approach	21.1	0.33	C	22.0	0.46	C	52.1	1.69	D	52.1	1.69	D
Northbound Left	1.7	0.27	A	4.2	0.49	A	80.2	1.12	F	51.1	0.97	D
Through	1.0	0.17	A	1.3	0.27	A	2.2	0.32	A	3.2	0.32	A
SB Approach	6.0	0.09	A	7.0	0.15	A	10.0	0.19	A	16.0	0.26	B
INTERSECTION	*6.0*		*A*	*7.6*		*A*	*49.0*		D	*39.6*		D

PM Peak Hour

WB Approach	20.3	0.44	C	22.9	0.57	C	26.4	1.15	C	51.4	1.47	D
Northbound Left	2.6	0.32	A	4.6	0.60	A	516.7	2.11	F	43.2	1.02	D
Through	1.7	0.21	A	1.1	0.33	A	0.8	0.37	A	3.4	0.33	A
SB Approach	7.1	0.10	A	9.5	0.16	A	11.9	0.18	B	25.7	0.44	C
INTERSECTION	*7.7*		*A*	*9.7*		*A*	*276.9*		F	*38.3*		D

Saturday Peak Hour

WB Approach	20.7	0.26	C	21.6	0.39	C	33.5	1.46	C	33.5	1.46	C
Northbound Left	0.9	0.15	A	1.4	0.28	A	16.0	0.85	B	42.8	0.92	D
Through	0.7	0.13	A	1.0	0.20	A	2.1	0.24	A	2.3	0.24	A
SB Approach	5.1	0.07	A	5.6	0.12	A	8.6	0.15	A	11.4	0.19	B
INTERSECTION	*6.0*		*A*	*6.9*		*A*	*20.2*		C	*29.5*		C

Level of Service for Signalized Intersection - Yaphank Avenue (CR 21) at LIE South Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound LT	24.0	0.06	C	16.5	0.06	B	17.0	0.10	B	17.2	0.11	B
Right	9.2	0.61	A	40.3	0.92	D	149.7	1.25	F	25.2	0.77	C
Northbound Thr	8.1	0.29	A	21.1	0.70	C	79.0	1.08	E	6.6	0.55	A
Right	2.0	0.25	A	3.2	0.44	A	3.8	0.55	A	2.4	0.54	A
Southbound Left	2.0	0.07	A	3.9	0.24	A	10.9	0.48	B	3.0	0.33	A
Through	1.9	0.16	A	3.6	0.43	A	4.8	0.66	A	5.6	0.63	A
INTERSECTION	*5.3*		*A*	*16.0*		*B*	*51.7*		D	*9.2*		A

Midday Peak Hour												
Eastbound LT	26.9	0.15	C	27.1	0.24	C	77.0	1.03	E	50.9	0.92	D
Right	9.3	0.46	A	9.1	0.58	A	306.7	1.62	F	23.8	0.89	C
Northbound Thr	7.8	0.34	A	11.5	0.53	B	50.7	1.01	D	9.3	0.56	A
Right	2.0	0.12	A	2.0	0.23	A	9.7	0.46	A	4.7	0.47	A
Southbound Left	1.8	0.08	A	2.3	0.15	A	203.2	1.36	F	54.2	0.98	D
Through	1.7	0.09	A	1.7	0.13	A	1.1	0.29	A	0.8	0.31	A
INTERSECTION	*6.4*		*A*	*7.8*		*A*	*122.1*		F	*20.2*		C

PM Peak Hour												
Eastbound LT	25.3	0.21	C	18.0	0.19	B	19.5	0.32	B	30.3	0.45	C
Right	9.0	0.66	A	32.6	0.92	C	288.7	1.58	F	54.2	1.03	D
Northbound Thr	10.9	0.46	B	34.0	0.89	C	592.7	2.27	F	24.0	0.97	C
Right	2.3	0.22	A	3.6	0.54	A	109.9	1.19	F	91.5	1.16	F
Southbound Left	2.6	0.12	A	13.2	0.46	B	35.9	0.77	D	42.1	0.78	D
Through	2.2	0.13	A	4.0	0.26	A	2.8	0.37	A	0.6	0.31	A
INTERSECTION	*7.6*		*A*	*20.4*		*C*	*295.9*		F	*47.0*		D

Saturday Peak Hour												
Eastbound LT	27.7	0.22	C	28.0	0.32	C	131.1	1.19	F	48.0	0.93	D
Right	9.1	0.44	A	8.6	0.56	A	336.0	1.69	F	22.6	0.89	C
Northbound Thr	7.1	0.23	A	9.8	0.38	A	26.5	0.86	C	7.8	0.52	A
Right	2.1	0.10	A	2.1	0.21	A	10.3	0.45	B	4.3	0.49	A
Southbound Left	1.8	0.06	A	2.0	0.11	A	237.4	1.44	F	60.2	1.00	E
Through	1.7	0.06	A	1.8	0.10	A	1.0	0.27	A	1.3	0.30	A
INTERSECTION	*7.0*		*A*	*7.7*		*A*	*144.9*		F	*21.2*		C

Level of Service for Unsignalized Intersection - Yaphank Avenue (CR 21) at SCDPW Driveway

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound LTR	10.9	0.02	B	20.3	0.07	C	1584.8	2.38	F	15.1	0.07	B
Westbound LTR	15.2	0.09	C	27.8	0.23	D	65.2	0.45	F	17.8	0.23	B
Northbound Left	8.5	0.03	A	10.8	0.06	B	14.1	0.09	B	5.1	0.17	A
Through	0.0	0.37	A	0.0	0.06	A	0.0	0.87	A	3.5	0.48	A
Right	0.0	0.04	A	0.0	0.05	A	0.0	0.05	A	1.1	0.06	A
Southbound Left	9.4	0.10	A	12.1	0.19	B	17.2	0.29	C	12.4	0.49	B
Through	0.0	0.14	A	0.0	0.31	A	0.0	0.47	A	3.8	0.53	A
Right	0.0	0.01	A	0.0	0.02	A	0.0	0.02	A	1.1	0.03	A
INTERSECTION	*1.3*		A	*1.5*		*A*	*9.9*		A	*4.1*		A

Midday Peak Hour

Eastbound LTR	12.2	0.12	B	17.7	0.25	C	*	15.01	F	21.1	0.41	C
Westbound LTR	11.7	0.10	B	15.7	0.19	C	110.3	0.77	F	21.6	0.40	C
Northbound Left	8.1	0.01	A	8.8	0.02	A	11.4	0.03	B	2.9	0.05	A
Through	0.0	0.20	A	0.0	0.34	A	0.0	0.91	A	4.1	0.52	A
Right	0.0	0.02	A	0.0	0.02	A	0.0	0.02	A	1.1	0.03	A
Southbound Left	8.1	0.03	A	9.0	0.05	A	14.9	0.12	B	6.0	0.22	A
Through	0.0	0.11	A	0.0	0.17	A	0.0	0.34	A	3.5	0.40	A
Right	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A	1.6	0.02	A
INTERSECTION	*2.0*		A	*2.4*		*A*	*312.1*		F	*4.8*		A

PM Peak Hour

Eastbound LTR	15.3	0.14	C	53.6	0.53	F	*	*	F	29.7	0.41	C
Westbound LTR	16.3	0.27	C	65.6	0.78	F	893.1	2.65	F	49.5	0.74	D
Northbound Left	9.1	0.01	A	11.0	0.02	B	20.3	0.06	C	4.8	0.14	A
Through	0.0	0.34	A	0.0	0.63	A	0.0	1.10	A	6.0	0.67	A
Right	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A	0.8	0.02	A
Southbound Left	8.7	0.01	A	10.8	0.02	B	17.1	0.04	C	2.6	0.10	A
Through	0.0	0.20	A	0.0	0.33	A	0.0	0.62	A	6.8	0.78	A
Right	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.7	0.01	A
INTERSECTION	*2.0*		A	*6.0*		*A*	*		F	*8.4*		A

Saturday Peak Hour

Eastbound LTR	10.3	0.02	B	12.1	0.03	B	28.5	0.10	D	21.3	0.08	C
Westbound LTR	10.4	0.00	B	12.7	0.01	B	40.3	0.03	E	0.3	0.02	A
Northbound Left	7.8	0.00	A	8.2	0.01	A	10.2	0.01	B	1.2	0.01	A
Through	0.0	0.19	A	0.0	0.33	A	0.0	0.90	A	1.6	0.44	A
Right	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
Southbound Left	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A
Through	0.0	0.08	A	0.0	0.13	A	0.0	0.29	A	1.0	0.29	A
Right	0.0	0.00	A	0.0	0.00	A	0.0	0.00	A	1.2	0.00	A
INTERSECTION	*0.3*		A	*0.3*		*A*	*0.3*		A	*1.5*		A

Level of Service for Unsignalized Intersection - Yaphank Avenue (CR 21) at Gerard Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Westbound LR	15.2	0.25	C	35.6	0.58	E	198.6	1.18	F	20.1	0.40	C
Northbound Thr	0.0	0.38	A	0.0	0.62	A	0.0	0.93	A	0.0	0.46	A
Right	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A
Southbound Left	9.4	0.03	A	10.9	0.06	B	14.6	0.09	B	14.0	0.09	B
Through	0.0	0.17	A	0.0	0.49	A	0.0	0.83	A	0.0	0.42	A
INTERSECTION	*1.9*		A	*2.9*		*A*	*10.0*		A	*1.2*		A

Midday Peak Hour												
Westbound LR	10.9	0.08	B	13.6	0.16	B	49.3	0.50	E	14.4	0.17	B
Northbound Thr	0.0	0.21	A	0.0	0.34	A	0.0	0.87	A	0.0	0.44	A
Right	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A
Southbound Left	8.4	0.03	A	8.9	0.05	A	14.1	0.11	B	13.1	0.10	B
Through	0.0	0.16	A	0.0	0.26	A	0.0	0.61	A	0.0	0.30	A
INTERSECTION	*1.3*		A	*1.3*		*A*	*1.7*		A	*0.7*		A

PM Peak Hour												
Westbound LR	12.1	0.06	B	19.6	0.16	C	74.3	0.49	F	16.7	0.13	C
Northbound Thr	0.0	0.29	A	0.0	0.57	A	0.0	1.04	A	0.0	0.52	A
Right	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A	0.0	0.01	A
Southbound Left	8.7	0.07	A	11.1	0.15	B	19.7	0.30	C	18.8	0.29	C
Through	0.0	0.26	A	0.0	0.47	A	0.0	1.07	A	0.0	0.53	A
INTERSECTION	*1.0*		A	*1.1*		*A*	*1.5*		A	*0.7*		A

Saturday Peak Hour												
Westbound LR	10.8	0.10	B	12.6	0.18	B	62.3	0.65	F	18.8	0.36	C
Northbound Thr	0.0	0.15	A	0.0	0.27	A	0.0	0.85	A	5.2	0.50	A
Right	0.0	0.01	A	0.0	0.02	A	0.0	0.02	A	0.8	0.03	A
Southbound Left	8.0	0.05	A	8.7	0.09	A	14.9	0.20	B	10.4	0.41	B
Through	0.0	0.13	A	0.0	0.22	A	0.0	0.57	A	3.3	0.33	A
INTERSECTION	*2.1*		A	*2.0*		*A*	*3.0*		A	*5.2*		A

Level of Service for Unsignalized Intersection - Yaphank Avenue (CR 21) at Glover Drive

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left	16.9	0.14	C	37.1	0.37	E	*	4.12	F	40.0	0.79	D
Right	9.9	0.04	A	15.2	0.10	C	35.1	0.42	E	8.8	0.24	A
Northbound Left	8.1	0.08	A	10.3	0.18	B	14.5	0.30	B	14.6	0.58	B
Through	0.0	0.36	A	0.0	0.59	A	0.0	0.67	A	6.3	0.52	A
ıthbound Through	0.0	0.14	A	0.0	0.44	A	0.0	0.72	A	17.0	0.74	B
Right	0.0	0.03	A	0.0	0.04	A	0.0	0.09	A	2.8	0.21	A
INTERSECTION	*1.8*		A	*2.2*		*A*	*1486.5*		F	*15.6*		B

Midday Peak Hour												
Eastbound Left	13.1	0.18	B	19.1	0.35	C	*	3.17	F	28.8	0.66	C
Right	10.0	0.08	A	11.6	0.14	B	15.6	0.29	C	6.5	0.30	A
Northbound Left	8.0	0.05	A	8.6	0.08	A	9.7	0.16	A	5.9	0.30	A
Through	0.0	0.19	A	0.0	0.31	A	0.0	0.69	A	8.1	0.59	A
ıthbound Through	0.0	0.13	A	0.0	0.23	A	0.0	0.36	A	13.3	0.40	B
Right	0.0	0.03	A	0.0	0.04	A	0.0	0.28	A	4.1	0.55	A
INTERSECTION	*3.0*		A	*3.4*		*A*	*1674.1*		F	*11.8*		B

PM Peak Hour												
Eastbound Left	15.5	0.30	C	47.8	0.74	E	*	4.11	F	41.2	0.78	D
Right	11.8	0.12	B	18.0	0.26	C	89.9	0.81	F	9.2	0.35	A
Northbound Left	8.5	0.04	A	10.0	0.07	A	16.0	0.24	C	9.6	0.41	A
Through	0.0	0.23	A	0.0	0.49	A	0.0	0.86	A	5.9	0.61	A
ıthbound Through	0.0	0.27	A	0.0	0.48	A	0.0	0.88	A	13.3	0.71	B
Right	0.0	0.01	A	0.0	0.02	A	0.0	0.25	A	2.5	0.41	A
INTERSECTION	*3.1*		A	*5.9*		*A*	*1037.5*		F	*12.1*		B

Saturday Peak Hour												
Eastbound Left	10.9	0.09	B	13.4	0.16	B	508.0	2.02	F	25.4	0.55	C
Right	9.6	0.07	A	11.0	0.11	B	14.3	0.24	B	5.6	0.25	A
Northbound Left	7.7	0.02	A	8.1	0.04	A	9.1	0.10	A	5.1	0.18	A
Through	0.0	0.13	A	0.0	0.24	A	0.0	0.62	A	6.0	0.46	A
ıthbound Through	0.0	0.12	A	0.0	0.22	A	0.0	0.35	A	10.2	0.32	B
Right	0.0	0.02	A	0.0	0.02	A	0.0	0.27	A	3.0	0.45	A
INTERSECTION	*2.4*		A	*2.2*		*A*	*85.3*		F	*9.7*		A

Level of Service for Signalized Intersection - Yaphank Avenue (CR 21) at Horseblock Road (CR 16)

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left	1.6	0.11	A	10.4	0.41	B				15.4	0.57	B	35.0	0.61	C
Through	1.7	0.13	A	9.8	0.24	A				10.4	0.31	B	6.1	0.27	A
Right	0.1	0.02	A	4.9	0.04	A				4.9	0.04	A	2.1	0.03	A
Westbound Left	4.9	0.04	A	5.4	0.08	A				5.5	0.08	A	11.6	0.13	B
Through-Right	10.4	0.26	B	18.0	0.67	B				84.4	1.12	F	47.0	1.02	D
Southbound Left	22.8	0.40	C	25.4	0.56	C				31.1	31.10	C	19.4	0.36	B
Through	19.6	0.22	B	19.7	0.28	B				19.5	19.50	B	37.0	0.90	D
Right	8.9	0.05	A	14.1	0.51	B				167.4	1.30	F	28.4	0.82	C
INTERSECTION	*9.7*		*A*	*16.2*		*B*				*54.0*		D	*33.3*		C
Midday Peak Hour															
Eastbound Left	7.2	0.14	A	14.5	0.42	B				30.1	0.74	C	37.3	0.50	D
Through	11.3	0.23	B	14.9	0.40	B				15.3	0.49	B	3.6	0.33	A
Right	5.9	0.03	A	5.8	0.05	A				4.6	0.06	A	0.6	0.04	A
Westbound Left	5.7	0.10	A	7.3	0.18	A				8.1	0.20	A	21.2	0.32	C
Through-Right	12.3	0.39	B	20.6	0.66	C				38.3	0.93	D	27.7	0.82	C
Southbound Left	27.4	0.47	C	29.9	0.62	C				46.7	0.88	D	38.9	0.55	D
Through	22.0	0.21	C	17.9	0.55	B				21.0	0.65	C	37.0	0.41	D
Right	9.1	0.07	A	10.2	0.17	B				11.6	0.27	B	21.0	0.40	C
INTERSECTION	*13.6*		*B*	*18.8*		*B*				*30.1*		C	*24.2*		C
PM Peak Hour															
Eastbound Left	6.8	0.13	A	17.0	0.65	B	31.5	0.80	C	679.3	2.47	F	66.2	1.04	E
Through	12.3	0.48	B	23.8	0.87	C	39.7	0.98	D	172.0	1.33	F	31.4	1.02	C
Right	2.7	0.04	A	3.8	0.06	A	4.5	0.07	A	5.3	0.07	A	1.2	0.05	A
Westbound Left	8.0	0.06	A	8.9	0.12	A	12.3	0.15	B	12.3	0.15	B	36.8	0.37	D
Through-Right	15.1	0.24	B	19.6	0.46	B	23.3	0.53	C	25.6	0.65	C	28.3	0.70	C
Southbound Left	37.5	0.78	D	123.6	1.17	F	50.5	0.95	D	199.7	1.37	F	40.4	0.90	D
Through	25.1	0.46	C	27.2	0.58	C	20.4	0.47	C	26.6	0.71	C	57.8	0.95	E
Right	8.8	0.06	A	10.2	0.26	B	10.2	0.26	B	13.9	0.55	B	6.3	0.63	A
INTERSECTION	*18.9*		*B*	*40.6*		*D*	*35.4*		*D*	*211.9*		F	*37.1*		D
Saturday Peak Hour															
Eastbound Left	5.2	0.08	A	7.4	0.27	A				18.0	0.63	B	27.9	0.46	C
Through	8.6	0.27	A	14.0	0.50	B				15.6	0.59	B	6.5	0.43	A
Right	4.5	0.04	A	4.9	0.06	A				4.1	0.07	A	1.9	0.05	A
Westbound Left	4.7	0.06	A	6.5	0.12	A				7.7	0.14	A	18.6	0.22	B
Through-Right	9.2	0.22	A	14.6	0.41	B				20.9	0.61	C	17.2	0.53	B
Southbound Left	27.3	0.40	C	27.5	0.52	C				33.8	0.75	C	32.7	0.51	C
Through	23.0	0.16	C	21.2	0.20	C				19.9	0.22	B	29.2	0.40	C
Right	9.0	0.04	A	9.3	0.11	A				10.0	0.18	A	14.5	0.31	B
INTERSECTION	*10.8*		*B*	*14.9*		*B*				*19.7*		B	*16.6*		B

Level of Service for Unsignalized Intersection - Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Westbound Left	31.0	0.20	D	113.3	0.64	F	12.9	0.08	B	12.9	0.08	B	10.9	0.07	B
Right	24.7	0.68	C	682.5	2.45	F	255.3	1.51	F	615.9	2.32	F	103.9	1.17	F
Northbound TR	0.0	0.33	A	0.0	0.46	A	49.6	1.00	D	51.2	1.00	D	47.3	0.99	D
Southbound Left	10.4	0.07	B	12.8	0.13	B	11.6	0.31	B	11.6	0.31	B	13.3	0.31	B
Through	0.0	0.10	A	0.0	0.16	A	12.2	0.39	B	13.5	0.51	B	13.3	0.50	B
INTERSECTION	*6.4*		*A*	*239.2*		*F*	*112.5*		*F*	*284.3*		F	*63.7*		E

Midday Peak Hour															
Westbound Left	31.7	0.46	D	205.2	1.19	F	12.3	0.21	B	12.3	0.21	B	11.1	0.20	B
Right	29.8	0.84	D	215.3	1.42	F	102.7	1.16	F	342.3	1.71	F	25.4	0.93	C
Northbound TR	0.0	0.16	A	0.0	0.22	A	36.6	0.83	D	76.4	1.05	E	46.0	0.94	D
Southbound Left	8.6	0.10	A	9.3	0.16	A	43.7	0.76	D	45.4	0.77	D	25.2	0.59	C
Through	0.0	0.13	A	0.0	0.21	A	19.7	0.57	B	23.5	0.74	C	20.2	0.68	C
INTERSECTION	*13.3*		*B*	*91.1*		*F*	*54.9*		*D*	*164.1*		F	*28.1*		C

PM Peak Hour															
Westbound Left	58.6	0.44	F	684.6	1.97	F	32.1	0.31	C	24.6	0.19	C	29.5	0.26	C
Right	13.9	0.39	B	46.5	0.91	E	12.0	0.78	B	28.0	0.95	C	6.3	0.72	A
Northbound TR	0.0	0.07	A	0.0	0.10	A	5.5	0.47	A	7.7	0.55	A	5.4	0.47	A
Southbound Left	8.1	0.16	A	8.6	0.24	A	9.5	0.59	A	17.5	0.69	B	10.5	0.61	B
Through	0.0	0.28	A	0.0	0.49	A	9.0	0.66	A	73.9	1.11	E	19.6	0.94	B
INTERSECTION	*4.0*		*A*	*22.1*		*C*	*9.1*		*A*	*47.7*		D	*13.9*		B

Saturday Peak Hour															
Westbound Left	34.1	0.28	D	165.0	0.89	F	23.7	0.22	C	18.7	0.13	B	19.0	0.16	B
Right	14.1	0.45	B	35.9	0.86	E	17.0	0.83	B	158.8	1.29	F	10.8	0.79	B
Northbound TR	0.0	0.16	A	0.0	0.22	A	16.4	0.51	B	36.1	0.90	D	20.4	0.65	C
Southbound Left	8.8	0.16	A	9.8	0.25	A	10.6	0.53	B	23.2	0.70	C	14.4	0.59	B
Through	0.0	0.15	A	0.0	0.22	A	6.9	0.33	A	12.1	0.53	B	8.1	0.44	A
INTERSECTION	*4.9*		*A*	*13.7*		*B*	*13.1*		*B*	*64.6*		E	*13.2*		B

Level of Service for Horseblock Road (CR 16) at Woodside Avenue (CR 99)

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound CR 16	3.0	0.10	A	4.2	0.21	A	5.5	0.33	A	5.5	0.33	A
Right	1.8	0.01	A	2.0	0.02	A	2.4	0.02	A	2.4	0.02	A
Westbound CR 99	24.8	0.25	C	20.0	0.39	B	20.7	0.46	C	20.7	0.46	C
INTERSECTION	*10.3*		*B*	*9.3*		*A*	*10.2*		B	*10.2*		B
Midday Peak Hour												
Eastbound CR 16	1.8	0.17	A	3.3	0.26	A	4.0	0.27	A	4.0	0.27	A
Right	0.7	0.02	A	1.0	0.02	A	1.2	0.03	A	1.2	0.03	A
Westbound CR 99	22.6	0.48	C	30.7	0.58	C	30.1	0.64	C	28.4	0.64	C
INTERSECTION	*10.7*		*B*	*15.2*		*C*	*16.2*		C	*15.4*		C
PM Peak Hour												
Eastbound CR 16	0.7	0.22	A	2.5	0.37	A	3.7	0.43	A	3.8	0.43	A
Right	0.0	0.01	A	0.5	0.01	A	0.6	0.02	A	0.6	0.02	A
Westbound CR 99	23.5	0.31	C	23.5	0.60	C	32.2	0.79	C	32.4	0.79	C
INTERSECTION	*5.0*		*A*	*9.4*		*A*	*15.9*		C	*16.1*		C
Saturday Peak Hour												
Eastbound CR 16	1.1	0.17	A	2.0	0.25	A	2.4	0.27	A	2.4	0.27	A
Right	0.4	0.01	A	0.6	0.02	A	0.7	0.02	A	0.7	0.02	A
Westbound CR 99	25.6	0.29	C	32.3	0.40	C	30.6	0.48	C	26.1	0.48	C
INTERSECTION	*7.0*		*A*	*10.0*		*A*	*11.5*		B	*10.1*		B

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at Brookhaven Town Landfill

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left				250.7	1.41	F	22.2	0.67	C	616.6	2.30	F	26.4	0.60	C
Through	8.1	0.18	A	5.2	0.23	A	2.1	0.20	A	2.1	0.20	A	5.2	0.24	A
Right	3.5	0.05	A	1.5	0.05	A	0.6	0.05	A	0.6	0.05	A	1.5	0.05	A
Westbound Left	2.4	0.05	A	4.9	0.08	A	2.0	0.07	A	2.0	0.07	A	18.5	0.16	B
Through	8.1	0.54	A	28.1	0.94	C	9.3	0.79	A	9.5	0.79	A	37.0	0.92	D
Right				1.2	0.24	A	0.6	0.21	A	3.9	0.75	A	11.4	0.76	B
Northbound Left	17.9	0.08	B	23.3	0.16	C	37.7	0.37	D	46.6	0.48	D	36.6	0.34	D
Through				0.2	0.07	A	0.3	0.08	A	0.3	0.08	A	0.4	0.10	A
Right	7.9	0.07	A			A			A			A			A
Southbound Left				23.1	0.15	C	36.5	0.33	D	273.1	1.46	F	44.2	0.68	D
Through-Right				0.3	0.06	A	0.5	0.08	A	12.7	0.52	B	1.0	0.26	A
INTERSECTION	*8.0*		*A*	*31.6*		*C*	*8.0*		*A*	*100.3*		F	*21.5*		C

Midday Peak Hour															
Eastbound Left				3.0	0.07	A				5.0	0.27	A	36.2	0.31	D
Through	10.3	0.26	B	3.2	0.29	A				3.5	0.34	A	14.4	0.46	B
Right	4.4	0.08	A	0.3	0.08	A				0.4	0.08	A	4.7	0.11	A
Westbound Left	3.9	0.11	A	9.5	0.19	A				7.9	0.22	A	14.6	0.36	B
Through	10.3	0.42	B	16.3	0.57	B				14.6	0.60	B	13.0	0.56	B
Right				3.4	0.04	A				2.8	0.15	A	2.4	0.15	A
Northbound Left	21.1	0.14	C	25.2	0.28	C				26.2	0.31	C	23.6	0.21	C
Through				0.7	0.18	A				0.8	0.20	A	4.9	0.23	A
Right	6.6	0.17	A			A						A			A
Southbound Left				26.3	0.33	C				36.7	0.65	D	33.7	0.48	C
Through-Right				0.3	0.09	A				1.1	0.25	A	1.3	0.27	A
INTERSECTION	*10.0*		*A*	*9.9*		*A*				*9.9*		A	*14.3*		B

PM Peak Hour															
Eastbound Left				5.9	0.12	A				30.1	0.72	C	46.3	0.60	D
Through	13.3	0.39	B	8.1	0.61	A				8.3	0.62	A	43.1	0.95	D
Right	10.5	0.00	B	3.0	0.00	A				3.0	0.00	A	12.7	0.01	B
Westbound Left	1.0	0.01	A	7.7	0.02	A				6.3	0.02	A	12.7	0.03	B
Through	7.1	0.37	A	20.0	0.61	B				23.1	0.74	C	29.1	0.85	C
Right				5.0	0.07	A				5.2	0.25	A	4.4	0.27	A
Northbound Left	23.2	0.04	C	24.1	0.09	C				33.0	0.27	C	38.3	0.19	D
Through				2.4	0.07	A				2.8	0.07	A	29.9	0.22	C
Right	10.5	0.05	B			A						A			A
Southbound Left				45.0	0.77	D				1113.3	3.42	F	48.9	0.98	D
Through-Right				1.0	0.24	A				144.8	1.24	F	34.4	0.91	C
INTERSECTION	*11.3*		*B*	*14.5*		*B*				*310.4*		F	*38.3*		D

Saturday Peak Hour															
Eastbound Left				3.3	0.07	A				6.1	0.28	A	29.1	0.21	C
Through	11.5	0.23	B	3.6	0.26	A				4.1	0.30	A	14.6	0.42	B
Right	4.3	0.15	A	0.4	0.16	A				0.4	0.16	A	3.1	0.21	A
Westbound Left	6.3	0.15	A	15.0	0.25	B				12.9	0.28	B	37.3	0.55	D
Through	11.6	0.41	B	21.2	0.59	C				19.8	0.61	B	28.4	0.67	C
Right				6.2	0.04	A				5.2	0.16	A	4.8	0.17	A
Northbound Left	22.6	0.26	C	27.3	0.47	C				29.2	0.52	C	27.7	0.41	C
Through				1.1	0.28	A				2.0	0.30	A	3.3	0.34	A
Right	5.9	0.26	A			A						A			A
Southbound Left				25.7	0.35	C				38.9	0.69	D	28.5	0.35	C
Through-Right				0.3	0.09	A				1.0	0.24	A	1.2	0.26	A
INTERSECTION	*10.9*		*B*	*12.3*		*B*				*12.5*		B	*18.9*		B

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
East 16 Left	12.9	0.22	B	34.1	0.65	C	10.6	0.35	B	8.5	0.40	A	10.2	0.29	B
Through	27.1	0.78	C	203.4	1.39	F	61.5	1.06	E	197.3	1.39	F	16.1	0.75	B
Right	3.9	0.02	A	4.0	0.03	A	2.2	0.02	A	2.2	0.02	A	1.8	0.02	A
West 16 Left	16.8	0.35	B	20.7	0.48	C	22.6	0.55	C	22.6	0.55	C	16.9	0.49	B
Through	17.8	0.55	B	27.3	0.80	C	15.6	0.66	B	17.1	0.70	B	9.9	0.37	A
Right	3.7	0.11	A	3.4	0.15	A	2.3	0.12	A	2.3	0.12	A	2.3	0.12	A
North 101 Left	11.7	0.07	B	12.3	0.12	B	17.3	0.15	B	17.3	0.15	B	17.3	0.15	B
Through	19.3	0.37	B	23.4	0.65	C	46.6	0.92	D	46.6	0.92	D	46.6	0.92	D
Right	5.0	0.20	A	4.7	0.26	A	6.7	0.33	A	6.9	0.33	A	6.7	0.33	A
South 101 Left	13.1	0.22	B	17.4	0.44	B	26.3	0.52	C	26.3	0.52	C	26.3	0.52	C
Through	17.4	0.39	B	19.9	0.58	B	32.6	0.78	C	32.6	0.78	C	32.6	0.78	C
Right	6.0	0.09	A	5.5	0.12	A	7.4	0.15	A	7.4	0.15	A	7.4	0.15	A
INTERSECTION	*18.0*		*B*	*60.7*		*E*	*35.2*		*D*	*73.1*		E	*23.5*		C
Midday Peak Hour															
East 16 Left	7.7	0.11	A	10.1	0.25	B	7.8	0.19	A	7.9	0.21	A	10.6	0.18	B
Through	21.0	0.74	C	62.9	1.06	E	48.5	1.01	D	56.0	1.05	E	14.3	0.55	B
Right	2.6	0.14	A	1.5	0.18	A	1.5	0.18	A	1.4	0.18	A	3.9	0.18	A
West 16 Left	30.3	0.70	C	109.6	1.09	F	54.3	0.89	D	53.6	0.89	D	25.1	0.72	C
Through	13.5	0.49	B	19.5	0.73	B	15.2	0.66	B	15.9	0.69	B	8.7	0.36	A
Right	1.5	0.09	A	2.8	0.12	A	2.3	0.11	A	2.5	0.11	A	1.5	0.11	A
North 101 Left	11.5	0.05	B	11.9	0.09	B	13.8	0.10	B	13.8	0.10	B	13.8	0.10	B
Through	17.5	0.27	B	19.8	0.48	B	22.8	0.54	C	24.0	0.61	C	24.0	0.61	C
Right	5.7	0.12	A	5.2	0.16	A	6.0	0.18	A	6.0	0.18	A	6.0	0.18	A
South 101 Left	11.9	0.09	B	12.8	0.17	B	15.0	0.20	B	15.4	0.22	B	15.4	0.22	B
Through	16.2	0.25	B	18.0	0.44	B	20.8	0.49	C	20.8	0.49	C	20.8	0.49	C
Right	6.1	0.09	A	5.5	0.12	A	6.3	0.13	A	6.3	0.13	A	6.3	0.13	A
INTERSECTION	*16.1*		*B*	*31.5*		*C*	*25.3*		*C*	*27.0*		C	*16.2*		B
PM Peak Hour															
East 16 Left	12.3	0.06	B	15.9	0.24	B	15.7	0.24	B	14.7	0.24	B	20.6	0.20	C
Through	35.7	0.86	D	162.2	1.30	F	142.8	1.26	F	168.6	1.32	F	24.4	0.70	C
Right	6.2	0.14	A	4.5	0.19	A	4.3	0.18	A	4.4	0.18	A	6.0	0.17	A
West 16 Left	92.1	0.97	F	201.0	1.32	F	104.1	1.07	F	103.2	1.07	F	93.7	1.04	F
Through	26.4	0.53	C	53.6	0.98	D	37.3	0.91	D	184.9	1.34	F	19.7	0.71	B
Right	8.9	0.19	A	3.8	0.25	A	3.1	0.23	A	2.7	0.23	A	3.0	0.23	A
North 101 Left	13.2	0.09	B	15.0	0.21	B	17.5	0.24	B	17.5	0.24	B	17.5	0.24	B
Through	22.9	0.53	C	32.8	0.85	C	45.9	0.94	D	46.5	0.95	D	46.5	0.95	D
Right	6.4	0.09	A	5.9	0.11	A	6.6	0.13	A	6.6	0.13	A	6.6	0.13	A
South 101 Left	14.7	0.23	B	21.0	0.47	C	23.0	0.47	C	23.0	0.47	C	23.0	0.47	C
Through	19.8	0.38	B	24.2	0.66	C	28.6	0.73	C	28.6	0.73	C	28.6	0.73	C
Right	5.9	0.10	A	5.3	0.14	A	5.9	0.15	A	5.9	0.15	A	5.9	0.15	A
INTERSECTION	*27.3*		*C*	*64.0*		*E*	*56.4*		*E*	*96.3*		F	*30.1*		C
Saturday Peak Hour															
East 16 Left	9.8	0.20	A	22.4	0.57	C				27.5	0.65	C	13.8	0.32	B
Through	20.1	0.72	C	49.6	1.02	D				56.2	1.05	E	12.9	0.55	B
Right	2.2	0.05	A	1.5	0.06	A				1.6	0.06	A	2.9	0.06	A
West 16 Left	11.9	0.34	B	16.0	0.48	B				16.5	0.48	B	17.4	0.42	B
Through	14.1	0.50	B	17.2	0.73	B				18.2	0.75	B	14.1	0.40	B
Right	2.3	0.06	A	2.6	0.08	A				2.9	0.08	A	3.8	0.08	A
North 101 Left	11.7	0.08	B	12.5	0.15	B				12.5	0.15	B	12.5	0.15	B
Through	17.6	0.29	B	20.2	0.52	C				21.1	0.58	C	21.1	0.58	C
Right	6.0	0.09	A	5.6	0.12	A				5.6	0.12	A	5.6	0.12	A
South 101 Left	12.0	0.11	B	13.3	0.22	B				13.8	0.24	B	13.8	0.24	B
Through	16.3	0.28	B	20.0	0.51	B				20.0	0.51	B	20.0	0.51	B
Right	6.3	0.07	A	5.8	0.10	A				5.8	0.10	A	5.8	0.10	A
INTERSECTION	*15.4*		*B*	*24.1*		*C*				*26.0*		C	*16.0*		B

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at Bellport Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound LT	9.1	0.44	A	23.2	0.82	C	31.3	0.87	C	114.6	1.18	F	17.3	0.65	B
Right	1.3	0.19	A	3.5	0.28	A	5.5	0.29	A	6.6	0.30	A	3.0	0.28	A
Westbound LT	12.3	0.42	B	20.4	0.69	C	27.2	0.73	C	78.2	1.06	E	13.1	0.43	B
Right	7.2	0.04	A	10.6	0.08	B	13.4	0.08	B	13.8	0.08	B	5.7	0.08	A
Northbound LTR	36.5	0.79	D	72.1	1.01	E	49.1	0.92	D	49.1	0.92	D	49.1	0.92	D
Southbound LTR	19.5	0.40	B	21.4	0.56	C	18.7	0.53	B	18.7	0.53	B	18.7	0.53	B
INTERSECTION	*16.0*		*B*	*28.9*		*C*	*28.7*		*C*	*71.1*		E	*20.1*		C

Midday Peak Hour															
Eastbound LT	10.2	0.53	B	24.9	0.86	C	32.4	0.86	C	40.3	0.92	D	15.2	0.44	B
Right	1.0	0.27	A	2.9	0.38	A	6.6	0.38	A	6.7	0.38	A	5.3	0.36	A
Westbound LT	15.5	0.62	B	38.0	0.93	D	36.2	0.93	D	41.6	0.96	D	12.5	0.53	B
Right	7.4	0.04	A	10.1	0.06	B	8.9	0.06	A	9.3	0.06	A	5.6	0.05	A
Northbound LTR	41.5	0.88	D	158.3	1.26	F	158.3	1.26	F	158.3	1.26	F	158.3	1.26	F
Southbound LTR	15.2	0.23	B	17.3	0.36	B	17.3	0.36	B	17.3	0.36	B	17.3	0.36	B
INTERSECTION	*18.4*		*B*	*56.0*		*E*	*57.8*		*E*	*61.0*		E	*45.9*		D

PM Peak Hour															
Eastbound LT	12.7	0.55	B	62.7	1.04	E				909.0	2.94	F	11.9	0.53	B
Right	2.3	0.29	A	4.4	0.40	A				4.7	0.41	A	2.0	0.38	A
Westbound LT	14.7	0.40	B	26.8	0.78	C				94.0	1.15	F	19.5	0.63	B
Right	7.9	0.12	A	12.5	0.17	B				13.0	0.17	B	10.8	0.17	B
Northbound LTR	47.1	0.86	D	176.3	1.29	F				176.3	1.29	F	176.3	1.29	F
Southbound LTR	21.9	0.33	C	37.4	0.79	D				37.4	0.79	D	37.4	0.79	D
INTERSECTION	*18.7*		*B*	*59.1*		*E*				*286.2*		F	*40.4*		D

Saturday Peak Hour															
Eastbound LT	12.4	0.50	B	29.1	0.87	C				36.4	0.92	D	11.7	0.44	B
Right	2.1	0.32	A	4.4	0.45	A				4.6	0.45	A	2.5	0.43	A
Westbound LT	12.2	0.49	B	22.8	0.78	C				24.5	0.81	C	9.6	0.44	A
Right	7.3	0.05	A	10.5	0.08	B				10.6	0.08	B	2.9	0.08	A
Northbound LTR	35.2	0.81	D	87.0	1.07	F				87.0	1.07	F	87.0	1.07	F
Southbound LTR	14.4	0.26	B	16.5	0.38	B				16.5	0.38	B	16.5	0.38	B
INTERSECTION	*15.3*		*B*	*33.2*		*C*				*35.5*		D	*24.5*		C

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at LIE North Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Westbound LT	25.0	0.58	C	22.2	0.64	C	33.9	0.83	C	33.9	0.83	C	33.9	0.83	C
Right	5.5	0.23	A	3.9	0.24	A	5.9	0.29	A	5.9	0.29	A	5.9	0.29	A
Northbound Left	29.8	0.84	C	437.2	1.92	F	59.1	1.03	E	82.3	1.10	F	33.8	0.74	C
Through	8.5	0.35	A	12.6	0.54	B	14.1	0.48	B	14.1	0.48	B	11.8	0.48	B
Southbound TR	6.2	0.25	A	9.9	0.39	A	24.0	0.69	C	24.0	0.69	C	23.1	0.66	C
INTERSECTION	*16.2*		*B*	*98.2*		*F*	*30.9*		*C*	*36.1*		D	*25.3*		C

Midday Peak Hour															
Westbound LT	28.9	0.58	C	26.5	0.63	C	31.8	0.73	C	31.8	0.73	C	31.8	0.73	C
Right	7.4	0.27	A	5.7	0.29	A	6.9	0.32	A	6.9	0.32	A	6.9	0.32	A
Northbound Left	23.0	0.77	C	378.8	1.80	F	27.7	0.92	C	29.1	0.93	C	28.5	0.65	C
Through	7.2	0.41	A	10.4	0.61	B	13.1	0.58	B	13.2	0.58	B	13.4	0.58	B
Southbound TR	4.6	0.27	A	7.1	0.40	A	24.2	0.73	C	24.8	0.75	C	22.4	0.69	C
INTERSECTION	*13.1*		*B*	*78.0*		*E*	*22.8*		*C*	*23.3*		C	*22.5*		C

PM Peak Hour															
Westbound LT	34.9	0.71	C	66.6	1.01	E	63.1	0.98	E	63.1	0.98	E	51.5	0.94	D
Right	8.2	0.30	A	7.5	0.35	A	7.7	0.34	A	7.7	0.34	A	7.1	0.33	A
Northbound Left	53.6	1.01	D	836.1	2.82	F	59.2	1.02	E	249.4	1.49	F	49.0	1.00	D
Through	2.1	0.46	A	2.4	0.64	A	9.5	0.63	A	9.5	0.63	A	15.3	0.65	B
Southbound TR	4.4	0.31	A	5.6	0.44	A	47.5	0.96	D	47.5	0.96	D	49.9	0.98	D
INTERSECTION	*18.1*		*B*	*188.3*		*F*	*42.8*		*D*	*96.6*		F	*41.2*		D

Saturday Peak Hour															
Westbound LT	31.1	0.56	C	28.4	0.60	C	33.2	0.69	C	33.2	0.69	C	33.2	0.69	C
Right	7.9	0.49	A	18.4	0.64	B	13.5	0.62	B	13.5	0.62	B	13.5	0.62	B
Northbound Left	16.1	0.74	B	335.0	1.70	F	29.7	0.87	C	30.7	0.90	C	36.3	0.70	D
Through	2.8	0.45	A	6.6	0.65	A	14.5	0.63	B	14.7	0.63	B	13.0	0.63	B
Southbound TR	4.2	0.26	A	6.6	0.38	A	22.7	0.66	C	23.1	0.68	C	20.5	0.62	C
INTERSECTION	*10.4*		*B*	*67.1*		*E*	*22.6*		*C*	*23.0*		C	*22.7*		C

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at LIE South Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left	25.2	0.26	C	20.2	0.20	C	20.2	0.20	C	20.2	0.20	C	20.5	0.22	C
Through	24.2	0.19	C	19.7	0.15	B	19.7	0.15	B	19.7	0.15	B	19.8	0.17	B
Right	10.6	0.74	B	106.1	1.16	F	106.1	1.16	F	269.3	1.54	F	22.6	0.91	C
Northbound TR	17.2	0.70	B	77.8	1.09	E	77.9	1.09	E	94.0	1.14	F	15.7	0.61	B
Southbound Left	35.7	0.46	D	121.8	1.11	F	114.4	1.11	F	114.4	1.11	F	50.3	0.82	D
Through	3.0	0.16	A	5.3	0.26	A	5.7	0.26	A	5.7	0.26	A	5.4	0.25	A
INTERSECTION	*15.5*		*B*	*72.7*		*E*	*72.0*		*E*	*134.8*		F	*20.1*		C

Midday Peak Hour

Eastbound Left	27.2	0.33	C	21.5	0.28	C	21.5	0.28	C	21.2	0.27	C	27.4	0.40	C
Through	25.7	0.25	C	20.6	0.21	C	20.6	0.21	C	20.3	0.21	C	25.6	0.30	C
Right	9.8	0.66	A	35.1	0.90	D	35.1	0.90	D	37.2	0.91	D	9.9	0.64	A
Northbound TR	21.1	0.80	C	139.9	1.25	F	139.8	1.25	F	151.3	1.27	F	17.0	0.67	B
Southbound Left	37.9	0.46	D	66.1	0.89	E	60.6	0.89	E	73.7	0.97	E	37.0	0.53	D
Through	3.1	0.22	A	5.2	0.34	A	5.1	0.34	A	5.3	0.34	A	3.8	0.30	A
INTERSECTION	*17.1*		*B*	*69.6*		*E*	*68.9*		*E*	*75.5*		E	*15.6*		B

PM Peak Hour

Eastbound Left	22.8	0.41	C	22.8	0.48	C				22.8	0.48	C	29.1	0.60	C
Through	20.2	0.24	C	19.9	0.28	B				19.9	0.28	B	24.0	0.35	C
Right	31.3	0.87	C	153.9	1.26	F				184.1	1.33	F	28.9	0.86	C
Northbound TR	44.0	0.93	D	295.4	1.59	F				492.4	2.04	F	40.0	0.97	D
Southbound Left	45.3	0.73	D	119.3	1.14	F				118.9	1.14	F	51.9	0.95	D
Through	6.3	0.34	A	7.8	0.49	A				11.1	0.49	B	6.7	0.44	A
INTERSECTION	*28.8*		*C*	*138.1*		*F*				*225.8*		F	*30.4*		C

Saturday Peak Hour

Eastbound Left	29.3	0.33	C	20.9	0.26	C				20.5	0.25	C	29.5	0.40	C
Through	27.6	0.24	C	19.8	0.19	B				19.5	0.18	B	27.4	0.29	C
Right	11.9	0.67	B	30.5	0.86	C				31.9	0.87	C	12.8	0.66	B
Northbound TR	31.9	0.88	C	272.7	1.54	F				294.6	1.59	F	20.6	0.72	C
Southbound Left	34.8	0.43	C	43.4	0.65	D				44.8	0.66	D	35.3	0.52	D
Through	3.3	0.22	A	6.6	0.35	A				7.3	0.36	A	4.4	0.30	A
INTERSECTION	*21.7*		*C*	*124.3*		*F*				*134.4*		F	*17.6*		B

Level of Service for Unsignalized Intersections - Yaphank Avenue at Area A Main Driveway

		2025 Build Volumes - Unsignalized			2025 Build Volumes - Signalized		
Time Period	**Movement**	**Delay**	**v/c Ratio**	**LOS**	**Delay**	**v/c Ratio**	**LOS**
AM Peak Hour	WB-L	116.2	0.90	F	27.7	0.16	C
	WB-R			A	9.8	0.06	A
	NB-T	0.0	0.88	A	10.3	0.64	B
	NB-R	0.0	0.06	A	2.3	0.09	A
	SB-L	14.9	0.10	B	29.9	0.10	C
	SB-T	0.0	0.50	A	3.1	0.59	A
	Intersection	*4.3*		*A*	*7.2*		*A*
Midday Peak Hour	WB-L	*	*	F	27.9	0.39	C
	WB-R			A	5.6	0.14	A
	NB-T	0.0	0.55	A	15.2	0.63	B
	NB-R	0.0	0.36	A	5.6	0.63	A
	SB-L	332.9	1.67	F	39.7	0.85	D
	SB-T	0.0	0.29	A	5.3	0.39	A
	Intersection	*		*F*	*15.9*		*B*
PM Peak Hour	WB-L	*	18.48	F	35.1	0.80	D
	WB-R			A	47.9	0.98	D
	NB-T	0.0	0.99	A	22.9	0.93	C
	NB-R	0.0	0.14	A	1.3	0.25	A
	SB-L	25.3	0.42	D	32.7	0.43	C
	SB-T	0.0	0.48	A	7.8	0.70	A
	Intersection	*3110.1*		*F*	*25.0*		*C*
Saturday Peak Hour	WB-L	*	*	F	27.4	0.38	C
	WB-R			A	5.5	0.12	A
	NB-T	0.0	0.49	A	21.4	0.65	C
	NB-R	0.0	0.36	A	7.7	0.65	A
	SB-L	266.7	1.52	F	23.7	0.69	C
	SB-T	0.0	0.23	A	2.3	0.31	A
	Intersection	*		*F*	*14.4*		*B*

Level of Service for Unsignalized Intersections - LIE South Service Road at Area A Secondary Driveway

		2025 Build Volumes		
Time Period	**Movement**	**Delay**	**v/c Ratio**	**LOS**
AM Peak Hour	EB-T	0.0	0.36	A
	EB-R	0.0	0.03	A
	NB-R	12.5	0.04	B
	INTERSECTION	*0.4*		*A*
Midday Peak Hour	EB-T	0.0	0.27	A
	EB-R	0.0	0.38	A
	NB-R	11.6	0.10	B
	INTERSECTION	*0.6*		*A*
PM Peak Hour	EB-T	0.0	0.73	A
	EB-R	0.0	0.08	A
	NB-R	91.1	0.93	F
	INTERSECTION	*11.4*		*B*
Saturday Peak Hour	EB-T	0.0	0.24	A
	EB-R	0.0	0.38	A
	NB-R	11.2	0.09	B
	INTERSECTION	*0.6*		*A*

11. Mitigation Summary

As a result of the analyses of each intersection and the results discussed in Section 6, the following list of traffic improvements are recommended for the proposed development:

1. Yaphank Avenue (CR 21) at LIE North Service Road
   - Add a northbound left turn lane
2. Yaphank Avenue (CR 21) at LIE South Service Road
   - Add an eastbound left turn lane, and a northbound through lane
3. Yaphank Avenue at SCDPW Driveway (#335)
   - Install a traffic signal at this location
   - Add a northbound through lane
4. Yaphank Avenue at Gerard Road
   - Add a northbound through lane, and a southbound through lane
5. Yaphank Avenue at Glover Drive
   - Install a traffic signal at this location
   - Add a northbound through lane, a southbound through lane, and an eastbound left turn lane

Please note that as shown at the above intersections, it is proposed that widening of Yaphank Avenue occurs between the LIE North Service Road and Glover Drive to provide for two continuous through lanes in both directions. Therefore, the bridge span between the LIE North Service Road and the South Service Road would need to be expanded. The bridge span over the LIRR, between the SCDPW Driveway and Gerard Road, appears to have enough room that widening of the bridge does not need to occur. However, further analysis at this location would be required to determine if this is the case. Between Glover Drive and Horseblock Road, it is proposed to gradually taper Yaphank Avenue into providing only one through lane in each direction.

6. Yaphank Avenue at Horseblock Road (CR 16)
   - Add a southbound left turn lane and an eastbound left turn lane
   - Restripe southbound approach to provide 2 left turn lanes, 1 through-right lane, and 1 right turn lane
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
   - Add a westbound right turn lane
8. Horseblock Road at Brookhaven Town Landfill
   - Add an eastbound left turn lane, a southbound left turn lane, a westbound through lane, and a westbound right turn lane
9. Horseblock Road at Patchogue-Yaphank Road (CR 101)
   - Add an eastbound through lane, and a westbound through lane

10. Horseblock Road at Bellport Road
    - Add an eastbound through lane, and a westbound through lane
11. Horseblock Road at LIE North Service Road
    - Add a northbound left turn lane
12. Horseblock Road at LIE South Service Road
    - Add an eastbound right turn lane, and a northbound through lane.
13. Yaphank Avenue at Area A Main Driveway
    - Install a traffic signal and configure the site driveway to the proposed geometry:

Table 11-1: Geometry at Yaphank Avenue – Area A Main Driveway

Dir.	Lanes	Dir.	Lanes
NB	*2-T*	EB	None
	1-R		
SB	2-*L*	WB	2-*L*
	2-T		2-T

14. LIE South Service Road at Area A Secondary Driveway
    - Configure the site driveway to the proposed geometry:

Table 11-2: Geometry at LIE South Service Road – Area A Secondary Driveway

Dir.	Lanes	Dir.	Lanes
NB	1-*R*	EB	1-T
			1-R
SB	None	WB	None

The actual worksheets containing the Mitigated 2025 Build Scenario are in Appendix M.

12. Future Conditions With As of Right Development

The next step involves analyzing the As-of Right Alternative, which evaluates the potential impacts of developing the site in accordance with the existing zoning. This alternative consists of developing approximately 2,500,000 s.f. of general office uses, and 50 single-family homes.

12.1 Trip Generation and Assignment

The expected As-of Right Alternative volumes are presented in the following table:

Table 12-1: As-of Right Alternative Peak Hour Trip Generation

Proposed Use	AM Peak Hour	Midday	PM	Saturday
General Offices	Enter: 2,168 tph	271tph	489 tph	271 tph
	Exit: 296 tph	231 tph	2,389 tph	231 tph
	Total: 2,463 tph	501 tph	2,879 tph	501 tph
Single Family Homes	Enter: 11 tph	29 tph	35 tph	29 tph
	Exit: 34 tph	25 tph	21 tph	25 tph
	Total: 45 tph	54 tph	56 tph	54 tph
Total	Enter: 2,179 tph	300 tph	524 tph	300 tph
	Exit: 330 tph	256 tph	2,410 tph	256 tph
	Total: 2,509 tph	556 tph	2,934 tph	556tph

Notes: 1. tph = trips per hour
2. Totals may not add directly due to rounding
3. Saturday trips were used for Midday trips for ITE uses

The As-of Right Alternative traffic volumes were distributed based on Table 5-12. The precise distributions are shown in Appendix N.

13. Assessing Impact: No Build vs. As-of Right Build Levels of Service

The next step of this report was to determine the As-of Right Build condition levels of service. Any traffic impacts are gauged by the genuine difference between the No Build and As-of Right Build levels of service. The As-of Right level of service summaries are listed in the following pages, while the actual worksheets are in Appendix O.

14. Summary and Conclusions

It is proposed to sell ±255 acres of Suffolk County property and develop it into four distinct areas, with a mix of residential, office, retail, restaurant, hotel, recreational, industrial, daycare, and power generation facilities. The property is on Yaphank Avenue in Yaphank, Town of Brookhaven, Suffolk County.

1. The following key intersections were included in this report:
    1. Yaphank Avenue (CR 21) at Long Island Expressway ("LIE") North Service Road
    2. Yaphank Avenue (CR 21) at LIE South Service Road
    3. Yaphank Avenue (CR 21) at SCDPW Driveway
    4. Yaphank Avenue (CR 21) at Gerard Road
    5. Yaphank Avenue (CR 21) at Glover Road
    6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
    7. Yaphank Avenue (CR 21)/Horseblock Road (CR 16) at Sunrise Highway Exit 57
    8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
    9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
    10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
    11. Horseblock Road (CR 16) at Bellport Road
    12. Horseblock Road (CR 16) at LIE North Service Road
    13. Horseblock Road (CR 16) at LIE South Service Road
2. The existing volumes were counted in June and November 2010 during the weekday AM, midday, PM and Saturday midday peak periods. The No Build condition was projected by applying a 2.04% per year ambient growth rate for 15 years and accounting for fourteen other planned projects in the area. Trip data for these other projects was referenced from any published environmental documents, and the ITE *Trip Generation* manual, as appropriate.
3. The expected trip generation for each area was calculated and shown in the following table

Table 14-1: Expected Site Trip Generation

	AM Peak Hour			MD/Sat Peak Hour			PM Peak Hour		
Phase	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Area A	155	114	269	1,848	388	2,236	428	1,757	2,186
Area B	80	465	546	395	353	749	453	188	642
Area C	0	0	0	37	26	63	1	1	2
Area D	1,075	146	1,221	77	77	154	172	1,262	1,434
Total	1,310	725	2,036	2,358	844	3,202	1,054	3,208	4,264

4. The locations, traffic controls, and proposed geometry at the four site driveways will be as follows:

    1. Yaphank Avenue at Glover Drive: 3-Phase traffic signal

Dir.	Lanes	Dir.	Lanes
NB	1-L	EB	2-L
	2-T		1-R
SB	2-T	WB	None
	1-R		

2. Horseblock Road at Brookhaven Town Landfill/Area D Driveway: 4-Phase traffic signal

Dir.	Lanes	Dir.	Lanes
NB	1-L	EB	2-L
	1-TR		2-T
			1-R
SB	2-L	WB	1-L
	1-TR		2-T
			2-R

3. Yaphank Avenue at Area A Main Driveway: 3-Phase traffic signal

Dir.	Lanes	Dir.	Lanes
NB	2-T	EB	None
	1-R		
SB	2-L	WB	2-L
	2-T		2-R

4. LIE North Service Road at Area A Secondary Driveway: Stop sign on Driveway

Dir.	Lanes	Dir.	Lanes
NB	1-R	EB	1-T
			1-R
SB	None	WB	None

5. Based on each area's expected trip generation, the projected trip distribution and assignment, along with the locations of the proposed site accesses, each area's potential traffic impacts can be identified separately from each other.

   - Area A's primary traffic generator is due to a stadium/arena event occurring during the peak period. Since the primary source of Area A's traffic originates from the east and the west along the LIE, traffic improvements pertaining to the LIE service roads, along with the site access can be attributed primarily to Area A.

   - Area B and C's traffic primarily traverses along Yaphank Avenue before reaching either the Sunrise Highway or the LIE. As shown above, this percentage of trips these two areas make up within the overall site ranges between 15% to 27% of the overall site's traffic, a much smaller percentage compared to the traffic generated by the other areas. Therefore, although adverse traffic impacts at intersections beyond Yaphank Avenue are attributable to Area B and C, these traffic impacts are primarily caused by Area A or Area D, depending upon the peak period.

- Area D's traffic has an equal percentage of traffic originating east/west of the LIE, and from the east along Sunrise Highway. This area generates a large portion of the traffic during the AM peak period, while both Areas A and D are major generators of traffic in the peak period. However, only Area D's site access is along Horseblock Road, while every other area's site access is further north along Yaphank Avenue. Therefore, it is safe to assume that any traffic impacts along Horseblock Road will be primarily attributed to Area D's expected traffic.

6. Each study intersection (except Horseblock Road and Woodbury Road) will require mitigation measures due to the proposed development:

   A. Yaphank Avenue (CR 21) at LIE North Service Road
      - Add a northbound left turn lane

   B. Yaphank Avenue (CR 21) at LIE South Service Road
      - Add an eastbound left turn lane, and a northbound through lane

   C. Yaphank Avenue at SCDPW Driveway (#335)
      - Install a traffic signal at this location
      - Add a northbound through lane

   D. Yaphank Avenue at Gerard Road
      - Add a northbound through lane, and a southbound through lane

   E. Yaphank Avenue at Horseblock Road (CR 16)
      - Add a southbound left turn lane and an eastbound left turn lane
      - Restripe southbound approach to provide 2 left turn lanes, 1 through-right lane, and 1 right turn lane

   F. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
      - Add a westbound right turn lane

   G. Horseblock Road at Patchogue-Yaphank Road (CR 101)
      - Add an eastbound through lane, and a westbound through lane

   H. Horseblock Road at Bellport Road
      - Add an eastbound through lane, and a westbound through lane

   I. Horseblock Road at LIE North Service Road
      - Add a northbound left turn lane

   J. Horseblock Road at LIE South Service Road
      - Add an eastbound right turn lane, and a northbound through lane.

Appendix A: Level of Service Descriptions

Appendix B: Trip Distribution and Assignment

Appendix C: Level of Service Summaries

Appendix D: Existing Level of Service/Capacity Worksheets

Appendix E: Accident Summary Tables

Appendix F: No Build Level of Service/Capacity Worksheets

Appendix G: Mitigated No Build Level of Service/Capacity Worksheets

Appendix H: New York Islanders Home Schedule at Nassau Coliseum

Appendix I: Overall Network Peak Hours and AADT Sheets

Appendix J: Transit Ridership Documents

Appendix K: AADT Sheets

Appendix L: Build Level of Service/Capacity Worksheets

Appendix M: Mitigated Build Level of Service/Capacity Worksheets

Appendix N: As-of Right Build Alternative Trip Distribution and Assignment

Appendix O: As-of Right Build Level of Service/Capacity Worksheets

APPENDIX A: LEVEL OF SERVICE DESCRIPTIONS

Level of service is a measure of traffic flow quality, which denotes the average delays that motorists face as they travel through an intersection. A motorist's delay is caused by several factors, including the presence of a traffic control (i.e., a signal or stop sign), geometry, other vehicles on the road, and incidents.
Total delay is the difference between the actual travel time, and the ideal travel time that would happen if there weren't any traffic controls, geometric delays, incidents, or other vehicles on the road. The HCS program only quantifies the "control delay," the portion of total delay attributed to the signal or stop sign. Control delay includes delays due to initial deceleration, stopped time, queue move-up time, and final acceleration.

The level of service (LOS) at **signalized** intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time.

The LOS at **two-way stop controlled** (**TWSC**) intersections depends on the capacity of each minor movement, not for the intersection as a whole. The capacity of a controlled leg is based on the distribution of gaps in the major street traffic flow, driver judgment in selecting a gap through which to move, and the follow-up time required by each driver in a queue.

The LOS at **All-Way stop controlled** (**AWSC**) intersections is also defined for each minor movement, and depends on the capacity, departure headway, and service time. A movement's delay is a function of the volume-to-capacity (v/c) ratio, service time, and departure headway.
The right of way at an AWSC intersection is controlled by stop signs on every leg of an intersection. Though the driver on the right generally has right of way, actual traffic flow at AWSC intersections generally follows one of two patterns:

1. Vehicles from opposite legs (i.e., northbound and southbound, or eastbound and westbound) arrive close to the same time; this is considered "2-phase" operation.
2. Vehicles from all four legs arrive separately. This is considered "4-phase" operation.

Service time is the time it takes an average vehicle to enter the intersection after stopping, and it depends on the probability that someone is on an opposing leg when a vehicle reaches the stop line. When the opposing legs are empty, a motorist can enter the intersection right after stopping. But if there are one or more vehicles on the opposing legs, the driver must wait for consensus from the other drivers before entering the intersection. The more opposing vehicles there are, the longer the service time will be, although subsequent delay increases get smaller with each additional vehicle. This probability depends on several factors, including the geometry of the intersection, lane configuration, and vehicular volumes.

Levels of service range between LOS A (relatively congestion-free) and LOS F (congested):
Level of Service A indicates very low control delays. This occurs when progression is extremely favorable; most vehicles arrive during the green phase and do not stop at all. Short traffic signal cycles may contribute to low delay.

Level of Service B generally occurs with good progression and/or short signal cycle lengths at signalized intersections. More vehicles stop than for LOS A, causing higher average delays.

LEVEL OF SERVICE DESCRIPTIONS (continued)

Level of Service C has higher delays than LOS B. This may result from fair progression and/or longer cycle lengths. Individual cycle failures, where motorists wait through an entire signal cycle, may begin to appear. The number of vehicles stopping is significant, though many still pass through without stopping.

Level of Service D has the influence of congestion becoming more noticeable. This may result from some combination of unfavorable progression, long cycle lengths, and high volume-to-capacity (v/c) ratios. The proportion of stopping vehicles increases, and individual cycle failures are noticeable.

Level of Service E is considered the limit of acceptable delay. This LOS generally indicates poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures occur often.

Level of Service F is considered unacceptable to most drivers. The condition often occurs with oversaturation (i.e., when arrival flow exceeds the intersection's capacity) but it may also occur at v/c ratios below 1.0 with many individual cycle failures.

The following average control delays are used to determine **Signalized** levels of service:

Level of Service A	≤ 10.0 seconds per vehicle
Level of Service B	> 10.0 and ≤ 20.0 seconds per vehicle
Level of Service C	> 20.0 and ≤ 35.0 seconds per vehicle
Level of Service D	> 35.0 and ≤ 55.0 seconds per vehicle
Level of Service E	> 55.0 and ≤ 80.0 seconds per vehicle
Level of Service F	> 80.0 seconds per vehicle

The expectation is that TWSC and AWSC intersections are designed to carry smaller traffic volumes than signalized intersections. Therefore, the delay threshold times are lower for the same LOS grades. The following delays are used to determine **Unsignalized** levels of service:

Level of Service A	≤ 10 seconds per vehicle
Level of Service B	> 10 and ≤ 15 seconds per vehicle
Level of Service C	> 15 and ≤ 25 seconds per vehicle
Level of Service D	> 25 and ≤ 35 seconds per vehicle
Level of Service E	> 35 and ≤ 50 seconds per vehicle
Level of Service F	> 50 seconds per vehicle

APPENDIX B: TRIP DISTRIBUTION AND ASSIGNMENT

Trip Distribution & Assignment Spreadsheet

Growth Factor: 2.04% for 15 years, to 2025
15-year growth: 1.354

Passby Percentages
0% Weekday
0% Weekend

Seasonal Factors:	Weekday	Saturday
November	1.03	0.858
June	1.105	0.946
Monthly Adjustment	*1.073*	*1.103*

Existing volumes X 1.354 to show 15 years of ambient growth plus trips generated by other planned projects:

	Area A External Non-Arena Trips AM	MID	PM	SAT
Enter	155	374	354	374
Exit	114	314	283	314
Total	269	688	637	688

	10% Area A Internal Captured Trips By Area B AM	MID	PM	SAT
Enter	17	42	39	42
Exit	13	35	31	35
Total	30	77	70	77

	Area A Arena Traffic AM	MID	PM	SAT
Enter	0	1393	73	1393
Exit	0	73	1393	73
Total	0	1466	1466	1466

	Area B External Trips AM	MID	PM	SAT
Enter	80	395	453	395
Exit	465	353	188	353
Total	545	748	641	748

AM PHF	MID PHF	PM PHF	SAT PHF	Dir.	Mvmt	2010 Existing Volumes AM	MID	PM	SAT	Seasonally Adjust to JUNE 2010 AM	MID	PM	SAT	Total Other Project Trips AM	MID	PM	SAT	2025 No Build Volumes AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT
INTERSECTION: Yaphank Avenue (CR 21) and LIE North Service Road																																													
				NB	Left	217	218	244	126	217	218	244	126	124	40	71	40	418	336	402	211		25%	29	79	71	79			---	---	---	---		50%	0	37	697	37		55%	256	194	103	194
0.84	0.85	0.84	0.82		Thr	107	189	222	147	107	189	222	147	6	15	18	15	151	271	319	215			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.84	0.77	0.93	0.82	SB	Thr	198	143	164	107	198	143	164	107	6	5	4	5	275	199	227	150			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	72	32	25	40	72	32	25	40	16	12	10	12	114	56	44	67			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	172	95	147	72	172	95	147	72	250	37	68	37	483	166	268	135	30%		47	112	106	112			---	---	---	---	20%		0	279	15	279	15%		12	59	68	59
0.86	0.88	0.82	0.86		Thr	1	0	5	4	1	0	5	4	0	0	0	0	2	0	7	6			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	48	35	64	31	48	35	64	31	2	3	4	3	67	51	91	45			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and LIE South Service Road																																													
0.92	0.93	0.85	0.81	NB	Thr	314	369	437	227	314	369	437	227	125	42	74	42	551	542	666	350		25%	29	79	71	79			---	---	---	---		50%	0	37	697	37		55%	256	194	103	194
					Right	240	115	193	85	240	115	193	85	42	56	200	56	367	212	462	172		15%	17	47	42	47			---	---	---	---		10%	0	7	139	7		15%	70	53	28	53
				SB	Left	40	51	65	43	40	51	65	43	4	3	3	3	59	73	91	62	15%		23	56	53	56			---	---	---	---	10%		0	139	7	139			---	---	---	---
0.86	0.96	0.95	0.86		Thr	345	209	310	132	345	209	310	132	251	37	68	37	719	320	488	216	15%		23	56	53	56			---	---	---	---	10%		0	139	7	139	15%		12	59	68	59
				EB	Left	15	33	51	43	15	33	51	43	6	13	16	13	27	58	86	72			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.87	0.96	0.85	0.86		Thr	0	4	1	6	0	4	1	6	0	0	0	0	0	6	2	9	15%		23	56	53	56			---	---	---	---	25%		0	348	18	348			---	---	---	---
					Right	255	158	316	136	255	158	316	136	125	45	120	45	471	259	548	230	10%		16	37	35	37			---	---	---	---	30%		0	418	22	418	55%		44	217	249	217
INTERSECTION: Yaphank Avenue (CR 21) and SCDPW Driveway																																													
				NB	Left	26	11	10	4	26	11	10	4	0	0	0	0	36	15	14	6			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.97	0.88	0.91	0.87		Thr	604	305	521	288	604	305	521	288	167	97	273	97	985	510	979	487	45%		70	168	159	168	100%		17	42	39	42	25%		0	348	18	348		70%	326	247	132	247
					Right	61	23	13	0	61	23	13	0	0	0	0	0	83	32	18	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	83	33	9	0	83	33	9	0	0	0	0	0	113	45	13	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.93	0.92	0.97	0.96		Thr	442	342	671	246	442	342	671	246	376	82	187	82	975	546	1096	416		45%	51	141	127	141		100%	13	35	31	35		30%	0	22	418	22	70%		56	277	317	277
					Right	22	16	5	3	22	16	5	3	0	0	0	0	30	22	7	5			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				EB	Left	1	27	13	5	1	27	13	5	0	0	0	0	2	37	18	7			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.50	0.66	0.59	0.50		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	9	31	20	5	9	31	20	5	0	0	0	0	13	42	28	7			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	11	14	16	0	11	14	16	0	0	0	0	0	15	19	22	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.56	0.82	0.43	0.50		Thr	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	18	34	34	2	18	34	34	2	0	0	0	0	25	47	47	3			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and Gerard Road																																													
0.88	0.94	0.92	0.79	NB	Thr	574	339	460	217	574	339	460	217	151	90	271	90	929	549	894	384	45%		70	168	159	168	100%		17	42	39	42	25%		0	348	18	348		70%	326	247	132	247
					Right	11	9	10	21	11	9	10	21	0	0	0	0	15	13	14	29			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	24	33	73	62	24	33	73	62	0	0	0	0	33	45	99	84			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.85	0.89	0.94	0.91		Thr	240	235	420	201	240	235	420	201	379	74	179	74	704	393	748	347		45%	51	141	127	141		100%	13	35	31	35		30%	0	22	418	22	70%		56	277	317	277
				WB	Left	16	9	8	10	16	9	8	10	0	0	0	0	22	13	11	14			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.79	0.65	0.83	0.77		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	82	38	25	55	82	38	25	55	0	0	0	0	112	52	34	75			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and Glover Drive																																													
				NB	Left	95	56	37	26	95	56	37	26	0	0	0	0	129	76	51	36			---	---	---	---			---	---	---	---			---	---	---	---	5%		4	20	23	20
0.88	0.85	0.88	0.79		Thr	544	268	343	192	544	268	343	192	151	90	271	90	888	453	736	350	45%		70	168	159	168			---	---	---	---	25%		0	348	18	348			---	---	---	---
0.89	0.85	0.90	0.85	SB	Thr	208	186	411	177	208	186	411	177	379	74	179	74	661	326	736	314		45%	51	141	127	141			---	---	---	---		30%	0	22	418	22			---	---	---	---
					Right	48	44	17	24	48	44	17	24	0	0	0	0	65	60	24	33			---	---	---	---		100%	13	35	31	35			---	---	---	---	70%		56	277	317	277
0.86	0.82	0.68	0.53	EB	Left	41	84	127	52	41	84	127	52	0	0	0	0	56	114	172	71			---	---	---	---	100%		17	42	39	42			---	---	---	---		70%	326	247	132	247
					Right	24	57	60	47	24	57	60	47	0	0	0	0	33	78	82	64			---	---	---	---			---	---	---	---			---	---	---	---		5%	23	18	9	18
INTERSECTION: Yaphank Avenue (CR 21) and Horseblock Road (CR 16)																																													
				NB	Left	0	2	1	3	0	2	1	3	0	0	0	0	0	3	2	5			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.42	0.42	0.58	0.75		Thr	2	2	2	0	2	2	2	0	0	0	0	0	3	3	3	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	3	1	4	3	3	1	4	3	0	0	0	0	5	2	6	5			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	122	146	353	121	122	146	353	121	27	22	88	22	193	220	566	186		35%	40	110	99	110			---	---	---	---		10%	0	7	139	7		5%	23	18	9	18
0.83	0.91	0.90	0.93		Thr	74	71	223	55	74	71	223	55	4	3	2	3	105	100	304	78		5%	6	16	14	16			---	---	---	---		10%	0	7	139	7			---	---	---	---
					Right	42	64	53	37	42	64	53	37	294	44	149	44	351	131	221	95		5%	6	16	14	16			---	---	---	---		10%	0	7	139	7			---	---	---	---
				EB	Left	57	60	61	45	57	60	61	45	52	51	160	51	130	133	243	112	5%		8	19	18	19			---	---	---	---	5%		0	70	4	70			---	---	---	---
0.89	0.94	0.87	0.86		Thr	250	361	753	537	250	361	753	537	58	66	285	66	397	555	1305	793			---	---	---	---			---	---	---	---			---	---	---	---		10%	47	35	19	35
					Right	23	26	32	35	23	26	32	35	0	0	0	0	32	36	44	48			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	30	58	21	30	30	58	21	30	0	0	0	0	41	79	29	41			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.95	0.98	0.95	0.90		Thr	515	693	365	440	515	693	365	440	343	44	96	44	1041	983	591	640			---	---	---	---			---	---	---	---			---	---	---	---	15%		12	59	68	59
					Right	552	235	293	180	552	235	293	180	161	37	60	37	909	356	457	281	40%		62	150	142	150			---	---	---	---	20%		0	279	15	279	5%		4	20	23	20
INTERSECTION: Yaphank Avenue/Horseblock Road and Sunrise Highway Exit 57																																													
0.92	0.96	0.86	0.87	NB	Thr	774	385	154	359	774	385	154	359	35	8	13	8	1083	530	222	495	5%		8	19	18	19			---	---	---	---	10%		0	139	7	139			---	---	---	---
					Right	48	51	404	127	48	51	404	127	0	0	0	0	65	70	547	172			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	49	102	206	170	49	102	206	170	0	0	0	0	67	139	279	231			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.94	0.91	0.90	0.91		Thr	328	414	851	451	328	414	851	451	75	85	335	85	520	646	1488	696		35%	40	110	99	110			---	---	---	---		10%	0	7	139	7		15%	70	53	28	53
0.91	0.92	0.95	0.84	WB	Left	31	104	49	41	31	104	49	41	2	2	2	2	44	143	69	58			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	340	583	246	277	340	583	246	277	469	71	141	71	930	861	475	447	35%		54	131	124	131			---	---	---	---	10%		0	139	7	139	20%		16	79	91	79
INTERSECTION: Horseblock Road (CR 16) and Woodside Avenue (CR 99)																																													
--	0.42	0.75	0.38	CR 16 U-Tu		0	5	3	3	0	5	3	3	0	0	0	0	0	7	5	5			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.89	0.88	0.81	0.87	CR 16 WB		597	807	455	590	597	807	455	590	115	56	208	56	924	1149	824	855			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.72	0.79	0.82	0.86	EB	Thr	232	361	527	399	232	361	527	399	128	27	92	27	443	516	806	568			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	14	15	10	13	14	15	10	13	0	0	0	0	19	21	14	18			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	0	5	0	6	0	5	0	6	29	12	128	12	29	19	128	21			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.73	0.95	0.82	0.93		Thr	125	313	124	136	125	313	124	136	26	23	104	23	196	447	272	208			---	---	---	---			---	---	---	---		10%	0	7	139	7		15%	70	53	28	53

Trip Distribution & Assignment Spreadsheet

Growth Factor: 2.04% for 15 years, to 2025
15-year growth: 1.354

Passby Percentages
0% Weekday
0% Weekend

Seasonal Factors:	Weekday	Saturday
November	1.03	0.858
June	1.105	0.946
Monthly Adjustment	*1.073*	*1.103*

Existing volumes X 1.354 to show 15 years of ambient growth plus trips generated by other planned projects:

Area A External Non-Arena Trips	AM	MID	PM	SAT
Enter	155	374	354	374
Exit	114	314	283	314
Total	269	688	637	688

10% Area A Internal Captured Trips By Area B	AM	MID	PM	SAT
Enter	17	42	39	42
Exit	13	35	31	35
Total	30	77	70	77

Area A Arena Traffic	AM	MID	PM	SAT
Enter	0	1393	73	1393
Exit	0	73	1393	73
Total	0	1466	1466	1466

Area B External Trips	AM	MID	PM	SAT
Enter	80	395	453	395
Exit	465	353	188	353
Total	545	748	641	748

AM PHF	MID PHF	PM PHF	SAT PHF	Dir.	Mvmt	2010 Existing Volumes AM	MID	PM	SAT	Seasonally Adjust to JUNE 2010 AM	MID	PM	SAT	Total Other Project Trips AM	MID	PM	SAT	2025 No Build Volumes AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT
INTERSECTION: Horseblock Road (CR 16) and Brookhaven Town Landfill																																													
				NB	Left	30	49	14	96	32	53	15	106	0	0	0	0	44	72	21	144			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.86	0.75	0.52	0.89		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	25	62	17	108	27	67	18	119	0	0	0	0	37	91	25	162			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	0	0	0	0	0	0	0	0	41	89	244	89	41	89	244	89			---	---	---	---			---	---	---	---		10%	47	35	19	35			---	---	---	---
--	--	--	--		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	0	0	0	0	0	0	0	0	23	48	132	48	23	48	132	48			---	---	---	---			---	---	---	---		15%	70	53	28	53			---	---	---	---
				EB	Left	0	0	0	0	0	0	0	0	137	22	35	22	137	22	35	22			---	---	---	---			---	---	---	---	10%		8	40	45	40			---	---	---	---
0.90	0.92	0.82	0.96		Thr	290	414	686	352	311	444	736	388	69	28	200	28	491	630	1197	554	5%		8	19	18	19			---	---	---	---	5%		0	70	4	70			---	---	---	---
					Right	35	56	2	109	38	60	2	120	0	0	0	0	51	82	3	163			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	30	51	2	76	32	55	2	84	0	0	0	0	44	75	3	114			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.95	0.91	0.92	0.93		Thr	547	416	390	408	587	446	418	450	299	34	107	34	1094	639	674	644		5%	6	16	14	16			---	---	---	---		10%	0	7	139	7			---	---	---	---
					Right	0	0	0	0	0	0	0	0	253	41	65	41	253	41	65	41			---	---	---	---			---	---	---	---			---	---	---	---	15%		12	59	68	59
INTERSECTION: Patchogue-Yaphank Road (CR 101) and Horseblock Road (CR 16)																																													
				NB	Left	20	22	29	31	20	22	29	31	0	0	0	0	28	30	40	42			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.84	0.96	0.88	0.89		Thr	362	317	554	337	362	317	554	337	147	139	136	139	638	569	887	596			---	---	---	---			---	---	---	---	5%		0	70	4	70			---	---	---	---
					Right	98	66	41	47	98	66	41	47	0	0	0	0	133	90	56	64			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	72	39	59	44	72	39	59	44	0	0	0	0	98	53	80	60			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.82	0.94	0.78	0.89		Thr	449	307	427	342	449	307	427	342	59	120	163	120	667	536	742	584			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	47	51	53	40	47	51	53	40	0	0	0	0	64	70	72	55			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				EB	Left	54	28	14	53	54	28	14	53	0	0	0	0	74	38	19	72			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.85	0.93	0.86	0.87		Thr	400	348	448	395	400	348	448	395	126	26	72	26	668	498	679	561			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	9	66	70	24	9	66	70	24	0	0	0	0	13	90	95	33			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	57	132	140	71	57	132	140	71	0	0	0	0	78	179	190	97			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.80	0.85	0.69	0.95		Thr	349	307	358	403	349	307	358	403	39	44	175	44	512	460	660	590			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	64	49	121	45	64	49	121	45	0	0	0	0	87	67	164	61			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Bellport Road and Horseblock Road (CR 16)																																													
				NB	Left	179	255	181	227	179	255	181	227	0	0	0	0	243	346	246	308			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.83	0.78	0.91	0.92		Thr	82	116	149	124	82	116	149	124	3	2	2	2	115	160	204	170			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	2	12	12	9	2	12	12	9	0	0	0	0	3	17	17	13			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	47	29	26	23	47	29	26	23	25	15	80	15	89	55	116	47			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.78	0.78	0.78	0.86		Thr	128	83	118	82	128	83	118	82	14	8	40	8	188	121	200	120			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	18	16	18	36	18	16	18	36	0	0	0	0	25	22	25	49			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				EB	Left	10	13	39	20	10	13	39	20	0	0	0	0	14	18	53	28			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.83	0.89	0.93	0.89		Thr	346	412	500	428	346	412	500	428	113	18	29	18	582	576	706	598			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	144	219	283	290	144	219	283	290	0	0	0	0	195	297	384	393			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	1	8	5	4	1	8	5	4	0	0	0	0	2	11	7	6			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.91	0.84	0.81	0.92		Thr	364	440	353	453	364	440	353	453	33	42	173	42	526	638	651	656			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	32	21	88	38	32	21	88	38	7	3	3	3	51	32	123	55			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Horseblock Road (CR 16) and LIE North Service Road																																													
				NB	Left	354	338	375	344	354	338	375	344	33	42	173	42	513	500	681	508			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.91	0.96	0.91	0.95		Thr	363	500	555	570	363	500	555	570	0	0	0	0	492	677	752	772			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.79	0.89	0.94	0.96	SB	Thr	456	619	770	649	456	619	770	649	0	0	0	0	618	839	1043	879			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	57	29	41	51	57	29	41	51	0	0	0	0	78	40	56	70			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				WB	Left	195	175	225	78	195	175	225	78	0	0	0	0	264	237	305	106			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.86	0.87	0.91	0.90		Thr	276	177	205	248	276	177	205	248	30	17	92	17	404	257	370	353			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	91	87	99	198	91	87	99	198	0	0	0	0	124	118	135	269			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Horseblock Road (CR 16) and LIE South Service Road																																													
0.94	0.89	0.98	0.94	NB	Thr	616	657	675	792	616	657	675	792	33	42	173	42	867	932	1087	1115			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	25	31	22	29	25	31	22	29	0	0	0	0	34	42	30	40			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				SB	Left	198	227	346	210	198	227	346	210	0	0	0	0	269	308	469	285			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.85	0.92	0.93	0.88		Thr	333	489	647	483	333	489	647	483	0	0	0	0	451	663	876	654			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
				EB	Left	73	101	202	98	73	101	202	98	0	0	0	0	99	137	274	133			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
0.82	0.93	0.80	0.94		Thr	53	73	112	68	53	73	112	68	0	0	0	0	72	99	152	93			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
					Right	405	326	430	310	405	326	430	310	113	18	29	18	662	460	612	438			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and Parcel A Main Driveway																																													
0.97	0.90	0.87	0.87	NB	Thr	623	366	568	295	623	366	568	295	167	97	273	97	1011	593	1042	497			---	---	---	---			---	---	---	---		70%	326	247	132	247			---	---	---	---
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45%		70	168	159	168	100%		17	42	39	42	25%		0	348	18	348			---	---	---	---
				SB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25%		39	94	89	94			---	---	---	---	40%		0	557	29	557			---	---	---	---
0.93	0.92	0.97	0.96		Thr	547	391	685	249	547	391	685	249	376	82	187	82	1117	612	1115	420			---	---	---	---			---	---	---	---			---	---	---	---	70%		56	277	317	277
--	--	--	--	WB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		45%	51	141	127	141		100%	13	35	31	35		30%	0	22	418	22			---	---	---	---
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		40%	46	126	113	126			---	---	---	---		60%	0	44	836	44			---	---	---	---
																		2128	1205	2157	917																								
INTERSECTION: Parcel A Secondary Driveway and LIE South Service Road																																													
--	--	--	--	NB	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		15%	17	47	42	47			---	---	---	---		10%	0	7	139	7			---	---	---	---
0.93	0.79	0.90	0.77	EB	Thr	280	171	259	141	280	171	259	141	46	58	202	58	426	290	553	249		15%	17	47	42	47			---	---	---	---		10%	0	7	139	7		15%	70	53	28	53
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30%		47	112	106	112			---	---	---	---	35%		0	488	26	488			---	---	---	---

Trip Distribution & Assignment Spreadsheet

Growth Factor: 2.04% for 15 years, to 2025
15-year growth: 1.354

Passby Percentages
0% Weekday
0% Weekend

	5% of Area B Captured by Immediate Area			
	AM	MID	PM	SAT
Enter	16	25	34	25
Exit	33	22	23	22
Total	49	47	57	47

	Area C			
	AM	MID	PM	SAT
Enter	0	37	1	37
Exit	0	26	1	26
Total	0	63	2	63

	Area D External Trips			
	AM	MID	PM	SAT
Enter	1075	77	172	77
Exit	146	77	1262	77
Total	1221	154	1434	154

AM PHF	MID PHF	PM PHF	SAT PHF	Dir.	Mvmt.	2010 Existi AM	2010 Existi MID	Distribution %Enter	Distribution %Exit	Generated Traffic AM	Generated Traffic MID	Generated Traffic PM	Generated Traffic SAT	Distribution %Enter	Distribution %Exit	Generated Traffic AM	Generated Traffic MID	Generated Traffic PM	Generated Traffic SAT	Distribution %Enter	Distribution %Exit	Generated Traffic AM	Generated Traffic MID	Generated Traffic PM	Generated Traffic SAT	Total Site Generated Traffic AM	Total Site Generated Traffic MID	Total Site Generated Traffic PM	Total Site Generated Traffic SAT	2025 Build Volumes AM	2025 Build Volumes MID	2025 Build Volumes PM	2025 Build Volumes SAT	% Increase over No Build AM	% Increase over No Build MID	% Increase over No Build PM	% Increase over No Build SAT	Dir.	Mvmt.
INTERSECTION: Yaphank Avenue (CR 21) and LIE Not																																							
				NB	Left	217	218			---	---	---	---		55%	0	14	1	14			---	---	---	---	284	323	871	323	703	660	1274	535	40.4%	49.0%	68.4%	60.5%	NB	Left
0.84	0.85	0.84	0.82		Thr	107	189			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	151	271	319	215						Thr
0.84	0.77	0.93	0.82	SB	Thr	198	143			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	275	199	227	150					SB	Thr
					Right	72	32			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	114	56	44	67						Right
				WB	Left	172	95			---	---	---	---	15%		0	6	0	6	30%		323	23	52	23	381	479	241	479	864	645	509	614	44.1%	74.2%	47.2%	78.0%	WB	Left
0.86	0.88	0.82	0.86		Thr	1	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	2	0	7	6						Thr
					Right	48	35			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	67	51	91	45						Right
INTERSECTION: Yaphank Avenue (CR 21) and LIE Sou																																							
0.92	0.93	0.85	0.81	NB	Thr	314	369			---	---	---	---		55%	0	14	1	14			---	---	---	---	284	323	871	323	836	866	1538	674	34.0%	37.3%	56.6%	48.0%	NB	Thr
					Right	240	115			---	---	---	---		15%	0	4	0	4		30%	44	23	379	23	131	134	589	134	498	347	1051	307	26.2%	38.7%	56.0%	43.8%		Right
				SB	Left	40	51			---	---	---	---			---	---	---	---			---	---	---	---	23	195	60	195	83	269	152	258	28.0%	72.6%	39.7%	75.7%	SB	Left
0.86	0.96	0.95	0.86		Thr	345	209			---	---	---	---	15%		0	6	0	6	30%		323	23	52	23	358	283	180	283	1077	604	669	500	33.2%	46.9%	26.9%	56.7%		Thr
				EB	Left	15	33			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	27	58	86	72					EB	Left
0.87	0.96	0.85	0.86		Thr	0	4			---	---	---	---			---	---	---	---			---	---	---	---	23	404	71	404	24	411	74	414	96.9%	98.4%	96.4%	97.7%		Thr
					Right	255	158			---	---	---	---	55%		0	20	1	20	5%		54	4	9	4	113	697	316	697	585	956	864	927	19.4%	72.9%	36.5%	75.2%		Right
INTERSECTION: Yaphank Avenue (CR 21) and SCDPW																																							
				NB	Left	26	11			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	36	15	14	6					NB	Left
0.97	0.88	0.91	0.87		Thr	604	305			---	---	---	---		70%	0	18	1	18		30%	44	23	379	23	456	847	727	847	1442	1357	1707	1334	31.6%	62.4%	42.6%	63.5%		Thr
					Right	61	23			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	83	32	18	0						Right
				SB	Left	83	33			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	113	45	13	0					SB	Left
0.93	0.92	0.97	0.96		Thr	442	342			---	---	---	---	70%		0	26	1	26	35%		376	27	60	27	497	528	954	528	1472	1074	2051	944	33.7%	49.1%	46.5%	55.9%		Thr
					Right	22	16			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	30	22	7	5						Right
				EB	Left	1	27			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	2	37	18	7					EB	Left
0.50	0.66	0.59	0.50		Thr	0	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0						Thr
					Right	9	31			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	13	42	28	7						Right
				WB	Left	11	14			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	15	19	22	0					WB	Left
0.56	0.82	0.43	0.50		Thr	0	1			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	2	0	0						Thr
					Right	18	34			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	25	47	47	3						Right
INTERSECTION: Yaphank Avenue (CR 21) and Gerard																																							
0.88	0.94	0.92	0.79	NB	Thr	574	339			---	---	---	---		70%	0	18	1	18		30%	44	23	379	23	456	847	727	847	1386	1396	1622	1231	32.9%	60.7%	44.8%	68.8%		Thr
					Right	11	9			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	15	13	14	29						Right
				SB	Left	24	33			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	33	45	99	84					SB	Left
0.85	0.89	0.94	0.91		Thr	240	235			---	---	---	---	70%		0	26	1	26	35%		376	27	60	27	497	528	954	528	1201	921	1703	875	41.3%	57.3%	56.0%	60.3%		Thr
				WB	Left	16	9			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	22	13	11	14					WB	Left
0.79	0.65	0.83	0.77		Thr	0	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0						Thr
					Right	82	38			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	112	52	34	75						Right
INTERSECTION: Yaphank Avenue (CR 21) and Glover																																							
				NB	Left	95	56	50%		8	13	17	13	30%		0	11	0	11			---	---	---	---	12	43	40	43	141	120	91	80	8.5%	36.1%	43.9%	54.2%	NB	Left
0.88	0.85	0.88	0.79		Thr	544	268			---	---	---	---			---	---	---	---		30%	44	23	379	23	114	540	556	540	1002	993	1293	890	11.3%	54.3%	43.0%	60.6%		Thr
0.89	0.85	0.90	0.85	SB	Thr	208	186			---	---	---	---			---	---	---	---	35%		376	27	60	27	428	190	605	190	1089	517	1342	505	39.3%	36.8%	45.1%	37.7%	SB	Thr
					Right	48	44	50%		8	13	17	13	70%		0	26	1	26			---	---	---	---	77	350	366	350	142	410	390	383	54.2%	85.3%	93.8%	91.4%		Right
0.86	0.82	0.68	0.53	EB	Left	41	84		50%	17	11	12	11		70%	0	18	1	18			---	---	---	---	359	318	183	318	415	433	355	390	86.5%	73.5%	51.5%	81.6%	EB	Left
					Right	24	57		50%	17	11	12	11		30%	0	8	0	8			---	---	---	---	40	36	21	36	73	115	104	101	54.5%	31.7%	20.4%	36.1%		Right
INTERSECTION: Yaphank Avenue (CR 21) and Horsebl																																							
				NB	Left	0	2			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	3	2	5					NB	Left
0.42	0.42	0.58	0.75		Thr	2	2			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	3	3	3	0						Thr
					Right	3	1			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	5	2	6	5						Right
				SB	Left	122	146			---	---	---	---		15%	0	4	0	4			---	---	---	---	63	139	248	139	257	359	814	325	24.6%	38.6%	30.5%	42.7%	SB	Left
0.83	0.91	0.90	0.93		Thr	74	71			---	---	---	---		5%	0	1	0	1			---	---	---	---	6	24	154	24	111	125	458	103	5.1%	19.4%	33.5%	23.6%		Thr
					Right	42	64			---	---	---	---		10%	0	3	0	3	35%		376	27	60	27	382	53	214	53	733	184	435	148	52.1%	28.6%	49.1%	35.5%		Right
				EB	Left	57	60			---	---	---	---	10%		0	4	0	4		30%	44	23	379	23	52	115	400	115	182	249	644	228	28.3%	46.2%	62.1%	50.5%	EB	Left
0.89	0.94	0.87	0.86		Thr	250	361			---	---	---	---			---	---	---	---		35%	51	27	442	27	98	62	461	62	495	618	1766	856	19.7%	10.1%	26.1%	7.3%		Thr
					Right	23	26			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	32	36	44	48						Right
				WB	Left	30	58			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	41	79	29	41					WB	Left
0.95	0.98	0.95	0.90		Thr	515	693			---	---	---	---			---	---	---	---	40%		430	31	69	31	442	90	137	90	1483	1074	728	731	29.8%	8.4%	18.8%	12.3%		Thr
					Right	552	235			---	---	---	---	20%		0	7	0	7			---	---	---	---	66	455	179	455	975	812	637	737	6.8%	56.1%	28.1%	61.8%		Right
INTERSECTION: Yaphank Avenue/Horseblock Road an																																							
0.92	0.96	0.86	0.87	NB	Thr	774	385			---	---	---	---			---	---	---	---			---	---	---	---	8	158	25	158	1091	688	247	653	0.7%	23.0%	10.1%	24.2%	NB	Thr
					Right	48	51			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	65	70	547	172						Right
				SB	Left	49	102			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	67	139	279	231					SB	Left
0.94	0.91	0.90	0.91		Thr	328	414			---	---	---	---		15%	0	4	0	4		35%	51	27	442	27	161	201	708	201	681	847	2197	897	23.6%	23.7%	32.2%	22.4%		Thr
0.91	0.92	0.95	0.84	WB	Left	31	104			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	44	143	69	58					WB	Left
					Right	340	583			---	---	---	---	20%		0	7	0	7	40%		430	31	69	31	500	387	291	387	1431	1249	766	835	35.0%	31.0%	38.0%	46.4%		Right
INTERSECTION: Horseblock Road (CR 16) and Woodsi																																							
--	0.42	0.75	0.38	CR 16 U-Tu		0	5			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	7	5	5					CR 16 U-Turn	
0.89	0.88	0.81	0.87	CR 16 WB		597	807			---	---	---	---			---	---	---	---		25%	37	19	316	19	37	19	316	19	961	1169	1140	875	3.8%	1.6%	27.7%	2.2%	CR 16 WB	
						0	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0						
0.72	0.79	0.82	0.86	EB	Thr	232	361			---	---	---	---			---	---	---	---	20%		215	15	34	15	215	15	34	15	658	532	841	584	32.7%	2.9%	4.1%	2.6%	EB	Thr
					Right	14	15			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	19	21	14	18						Right
				WB	Left	0	5			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	29	19	128	21					WB	Left
0.73	0.95	0.82	0.93		Thr	125	313			---	---	---	---		10%	0	3	0	3		5%	7	4	63	4	77	67	231	67	274	514	503	275	28.1%	13.0%	45.9%	24.3%		Thr

Trip Distribution & Assignment Spreadsheet

Growth Factor: 2.04% for 15 years, to 2025
15-year growth: 1.354

Passby Percentages
0% Weekday
0% Weekend

	5% of Area B Captured by Immediate Area			
	AM	MID	PM	SAT
Enter	16	25	34	25
Exit	33	22	23	22
Total	49	47	57	47

	Area C			
	AM	MID	PM	SAT
Enter	0	37	1	37
Exit	0	26	1	26
Total	0	63	2	63

	Area D External Trips			
	AM	MID	PM	SAT
Enter	1075	77	172	77
Exit	146	77	1262	77
Total	1221	154	1434	154

AM PHF	MID PHF	PM PHF	SAT PHF	Dir.	Mvmt.	2010 Existi AM	2010 Existi MID	Distribution %Enter	Distribution %Exit	Generated Traffic AM	Generated Traffic MID	Generated Traffic PM	Generated Traffic SAT	Distribution %Enter	Distribution %Exit	Generated Traffic AM	Generated Traffic MID	Generated Traffic PM	Generated Traffic SAT	Distribution %Enter	Distribution %Exit	Generated Traffic AM	Generated Traffic MID	Generated Traffic PM	Generated Traffic SAT	Total Site Generated Traffic AM	Total Site Generated Traffic MID	Total Site Generated Traffic PM	Total Site Generated Traffic SAT	2025 Build Volumes AM	2025 Build Volumes MID	2025 Build Volumes PM	2025 Build Volumes SAT	% Increase over No Build AM	% Increase over No Build MID	% Increase over No Build PM	% Increase over No Build SAT	Dir.	Mvmt.
INTERSECTION: Horseblock Road (CR 16) and Brookh																																							
				NB	Left	30	49			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	44	72	21	144					NB	Left
0.86	0.75	0.52	0.89		Thr	0	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0						Thr
					Right	25	62			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	37	91	25	162						Right
				SB	Left	0	0			---	---	---	---			---	---	---	---		65%	95	50	820	50	141	85	839	85	183	175	1084	175	77.3%	48.8%	77.4%	48.8%	SB	Left
--	--	--	--		Thr	0	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0						Thr
					Right	0	0			---	---	---	---			---	---	---	---		35%	51	27	442	27	121	80	470	80	144	128	602	128	83.9%	62.4%	78.1%	62.4%		Right
				EB	Left	0	0			---	---	---	---			---	---	---	---	30%		323	23	52	23	331	63	97	63	468	85	132	85	70.6%	73.6%	73.4%	73.6%	EB	Left
0.90	0.92	0.82	0.96		Thr	290	414		10%	---	---	---	---			0	4	0	4			---	---	---	---	8	92	21	92	499	723	1219	647	1.6%	12.7%	1.8%	14.2%		Thr
					Right	35	56			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	51	82	3	163						Right
				WB	Left	30	51			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	44	75	3	114					WB	Left
0.95	0.91	0.92	0.93		Thr	547	416			---	---	---	---		10%	0	3	0	3			---	---	---	---	6	26	154	26	1100	665	828	670	0.5%	3.8%	18.5%	3.8%		Thr
					Right	0	0			---	---	---	---			---	---	---	---	70%		753	54	120	54	765	113	188	113	1018	155	254	155	75.1%	73.0%	74.2%	73.0%		Right
INTERSECTION: Patchogue-Yaphank Road (CR 101) a																																							
				NB	Left	20	22			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	28	30	40	42					NB	Left
0.84	0.96	0.88	0.89		Thr	362	317			---	---	---	---			---	---	---	---			---	---	---	---	0	70	4	70	638	639	891	666		10.9%	0.4%	10.5%		Thr
					Right	98	66			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	133	90	56	64						Right
				SB	Left	72	39			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	98	53	80	60					SB	Left
0.82	0.94	0.78	0.89		Thr	449	307			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	667	536	742	584						Thr
					Right	47	51			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	64	70	72	55						Right
				EB	Left	54	28			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	74	38	19	72					EB	Left
0.85	0.93	0.86	0.87		Thr	400	348			---	---	---	---			---	---	---	---	20%		215	15	34	15	215	15	34	15	883	514	714	577	24.3%	3.0%	4.8%	2.7%		Thr
					Right	9	66			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	13	90	95	33						Right
				WB	Left	57	132			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	78	179	190	97					WB	Left
0.80	0.85	0.69	0.95		Thr	349	307			---	---	---	---			---	---	---	---		25%	37	19	316	19	37	19	316	19	549	480	976	610	6.6%	4.0%	32.3%	3.2%		Thr
					Right	64	49			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	87	67	164	61						Right
INTERSECTION: Bellport Road and Horseblock Road (C																																							
				NB	Left	179	255			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	243	346	246	308					NB	Left
0.83	0.78	0.91	0.92		Thr	82	116			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	115	160	204	170						Thr
					Right	2	12			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	3	17	17	13						Right
				SB	Left	47	29			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	89	55	116	47					SB	Left
0.78	0.78	0.78	0.86		Thr	128	83			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	188	121	200	120						Thr
					Right	18	16			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	25	22	25	49						Right
				EB	Left	10	13			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	14	18	53	28					EB	Left
0.83	0.89	0.93	0.89		Thr	346	412			---	---	---	---			---	---	---	---	20%		215	15	34	15	215	15	34	15	797	592	741	614	27.0%	2.6%	4.6%	2.5%		Thr
					Right	144	219			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	195	297	384	393						Right
				WB	Left	1	8			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	2	11	7	6					WB	Left
0.91	0.84	0.81	0.92		Thr	364	440			---	---	---	---			---	---	---	---		25%	37	19	316	19	37	19	316	19	563	658	967	676	6.5%	2.9%	32.6%	2.8%		Thr
					Right	32	21			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	51	32	123	55						Right
INTERSECTION: Horseblock Road (CR 16) and LIE No																																							
				NB	Left	354	338			---	---	---	---			---	---	---	---		25%	37	19	316	19	37	19	316	19	550	520	997	528	6.6%	3.7%	31.6%	3.6%	NB	Left
0.91	0.96	0.91	0.95		Thr	363	500			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	492	677	752	772						Thr
					Right	0	0			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0						Right
0.79	0.89	0.94	0.96	SB	Thr	456	619			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	618	839	1043	879					SB	Thr
					Right	57	29			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	78	40	56	70						Right
				WB	Left	195	175			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	264	237	305	106					WB	Left
0.86	0.87	0.91	0.90		Thr	276	177			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	404	257	370	353						Thr
					Right	91	87			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	124	118	135	269						Right
INTERSECTION: Horseblock Road (CR 16) and LIE Sou																																							
0.94	0.89	0.98	0.94	NB	Thr	616	657			---	---	---	---			---	---	---	---		25%	37	19	316	19	37	19	316	19	904	952	1403	1135	4.0%	2.0%	22.5%	1.7%	NB	Thr
					Right	25	31			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	34	42	30	40						Right
				SB	Left	198	227			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	269	308	469	285					SB	Left
0.85	0.92	0.93	0.88		Thr	333	489			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	451	663	876	654						Thr
				EB	Left	73	101			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	99	137	274	133					EB	Left
0.82	0.93	0.80	0.94		Thr	53	73			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	72	99	152	93						Thr
					Right	405	326			---	---	---	---			---	---	---	---	20%		215	15	34	15	215	15	34	15	877	476	647	454	24.5%	3.2%	5.3%	3.4%		Right
INTERSECTION: Yaphank Avenue (CR 21) and Parcel A																																							
0.97	0.90	0.87	0.87	NB	Thr	623	366			---	---	---	---			---	---	---	---		30%	44	23	379	23	369	270	510	270	1381	864	1553	768	26.7%	31.3%	32.9%	35.2%		Thr
					Right	0	0			---	---	---	---			---	---	---	---			---	---	---	---	87	559	217	559	87	559	217	559	99.7%	99.9%	99.8%	99.9%		Right
				SB	Left	0	0			---	---	---	---			---	---	---	---			---	---	---	---	39	651	118	651	39	651	118	651	99.4%	100.0%	99.7%	100.0%	SB	Left
0.93	0.92	0.97	0.96		Thr	547	391			---	---	---	---			---	---	---	---	35%		376	27	60	27	432	303	377	303	1550	916	1493	724	27.9%	33.1%	25.3%	41.9%		Thr
--	--	--	--	WB	Left	0	0			---	---	---	---			---	---	---	---			---	---	---	---	64	198	576	198	65	199	577	199	98.9%	99.6%	99.9%	99.6%	WB	Left
					Right	0	0			---	---	---	---			---	---	---	---			---	---	---	---	46	169	949	169	46	170	949	170	99.1%	99.6%	100.0%	99.6%		Right
INTERSECTION: Parcel A Secondary Driveway and LIE																																							
--	--	--	--	NB	Right	0	0			---	---	---	---			---	---	---	---			---	---	---	---	17	54	182	54	18	55	182	55	95.0%	98.9%	99.9%	98.9%		Right
0.93	0.79	0.90	0.77	EB	Thr	280	171			---	---	---	---			---	---	---	---		30%	44	23	379	23	131	130	589	130	557	421	1142	380	23.5%	31.0%	51.5%	34.3%		Thr
					Right	0	0			---	---	---	---			---	---	---	---			---	---	---	---	47	600	132	600	47	600	132	600	98.9%	100.0%	99.8%	100.0%		Right

APPENDIX C: LEVEL OF SERVICE SUMMARIES

Level of Service for Signalized Intersection - Yaphank Avenue (CR 21) at LIE North Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
WB Approach	22.5	0.45	C	26.0	1.15	C				85.4	1.91	F	26.9	1.49	C
Northbound Left	4.7	0.31	A	23.5	0.84	C				231.4	1.47	F	23.1	0.83	C
Through	1.8	0.10	A	1.4	0.18	A				1.1	0.19	A	2.6	0.22	A
SB Approach	6.5	0.16	A	10.9	0.28	B				11.4	0.30	B	48.3	0.89	D
INTERSECTION	*9.7*		*A*	*18.9*		*B*				*113.6*		F	*27.8*		C
Midday Peak Hour															
WB Approach	21.1	0.33	C	22.0	0.46	C				52.1	1.69	D	52.1	1.69	D
Northbound Left	1.7	0.27	A	4.2	0.49	A				80.2	1.12	F	51.1	0.97	D
Through	1.0	0.17	A	1.3	0.27	A				2.2	0.32	A	3.2	0.32	A
SB Approach	6.0	0.09	A	7.0	0.15	A				10.0	0.19	A	16.0	0.26	B
INTERSECTION	*6.0*		*A*	*7.6*		*A*				*49.0*		D	*39.6*		D
PM Peak Hour															
WB Approach	20.3	0.44	C	22.9	0.57	C				26.4	1.15	C	51.4	1.47	D
Northbound Left	2.6	0.32	A	4.6	0.60	A				516.7	2.11	F	43.2	1.02	D
Through	1.7	0.21	A	1.1	0.33	A				0.8	0.37	A	3.4	0.33	A
SB Approach	7.1	0.10	A	9.5	0.16	A				11.9	0.18	B	25.7	0.44	C
INTERSECTION	*7.7*		*A*	*9.7*		*A*				*276.9*		F	*38.3*		D
Saturday Peak Hour															
WB Approach	20.7	0.26	C	21.6	0.39	C				33.5	1.46	C	33.5	1.46	C
Northbound Left	0.9	0.15	A	1.4	0.28	A				16.0	0.85	B	42.8	0.92	D
Through	0.7	0.13	A	1.0	0.20	A				2.1	0.24	A	2.3	0.24	A
SB Approach	5.1	0.07	A	5.6	0.12	A				8.6	0.15	A	11.4	0.19	B
INTERSECTION	*6.0*		*A*	*6.9*		*A*				*20.2*		C	*29.5*		C

Level of Service for Signalized Intersection - Yaphank Avenue (CR 21) at LIE South Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound LT	24.0	0.06	C	16.5	0.06	B				17.0	0.10	B	17.2	0.11	B
Right	9.2	0.61	A	40.3	0.92	D				149.7	1.25	F	25.2	0.77	C
Northbound Thr	8.1	0.29	A	21.1	0.70	C				79.0	1.08	E	6.6	0.55	A
Right	2.0	0.25	A	3.2	0.44	A				3.8	0.55	A	2.4	0.54	A
Southbound Left	2.0	0.07	A	3.9	0.24	A				10.9	0.48	B	3.0	0.33	A
Through	1.9	0.16	A	3.6	0.43	A				4.8	0.66	A	5.6	0.63	A
INTERSECTION	*5.3*		*A*	*16.0*		*B*				*51.7*		D	*9.2*		A
Midday Peak Hour															
Eastbound LT	26.9	0.15	C	27.1	0.24	C				77.0	1.03	E	50.9	0.92	D
Right	9.3	0.46	A	9.1	0.58	A				306.7	1.62	F	23.8	0.89	C
Northbound Thr	7.8	0.34	A	11.5	0.53	B				50.7	1.01	D	9.3	0.56	A
Right	2.0	0.12	A	2.0	0.23	A				9.7	0.46	A	4.7	0.47	A
Southbound Left	1.8	0.08	A	2.3	0.15	A				203.2	1.36	F	54.2	0.98	D
Through	1.7	0.09	A	1.7	0.13	A				1.1	0.29	A	0.8	0.31	A
INTERSECTION	*6.4*		*A*	*7.8*		*A*				*122.1*		F	*20.2*		C
PM Peak Hour															
Eastbound LT	25.3	0.21	C	18.0	0.19	B				19.5	0.32	B	30.3	0.45	C
Right	9.0	0.66	A	32.6	0.92	C				288.7	1.58	F	54.2	1.03	D
Northbound Thr	10.9	0.46	B	34.0	0.89	C				592.7	2.27	F	24.0	0.97	C
Right	2.3	0.22	A	3.6	0.54	A				109.9	1.19	F	91.5	1.16	F
Southbound Left	2.6	0.12	A	13.2	0.46	B				35.9	0.77	D	42.1	0.78	D
Through	2.2	0.13	A	4.0	0.26	A				2.8	0.37	A	0.6	0.31	A
INTERSECTION	*7.6*		*A*	*20.4*		*C*				*295.9*		F	*47.0*		D
Saturday Peak Hour															
Eastbound LT	27.7	0.22	C	28.0	0.32	C				131.1	1.19	F	48.0	0.93	D
Right	9.1	0.44	A	8.6	0.56	A				336.0	1.69	F	22.6	0.89	C
Northbound Thr	7.1	0.23	A	9.8	0.38	A				26.5	0.86	C	7.8	0.52	A
Right	2.1	0.10	A	2.1	0.21	A				10.3	0.45	B	4.3	0.49	A
Southbound Left	1.8	0.06	A	2.0	0.11	A				237.4	1.44	F	60.2	1.00	E
Through	1.7	0.06	A	1.8	0.10	A				1.0	0.27	A	1.3	0.30	A
INTERSECTION	*7.0*		*A*	*7.7*		*A*				*144.9*		F	*21.2*		C

Level of Service for Unsignalized Intersection - Yaphank Avenue (CR 21) at SCDPW Driveway

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound LTR	10.9	0.02	B	20.3	0.07	C				1584.8	2.38	F	15.1	0.07	B
Westbound LTR	15.2	0.09	C	27.8	0.23	D				65.2	0.45	F	17.8	0.23	B
Northbound Left	8.5	0.03	A	10.8	0.06	B				14.1	0.09	B	5.1	0.17	A
Through	0.0	0.37	A	0.0	0.06	A				0.0	0.87	A	3.5	0.48	A
Right	0.0	0.04	A	0.0	0.05	A				0.0	0.05	A	1.1	0.06	A
Southbound Left	9.4	0.10	A	12.1	0.19	B				17.2	0.29	C	12.4	0.49	B
Through	0.0	0.14	A	0.0	0.31	A				0.0	0.47	A	3.8	0.53	A
Right	0.0	0.01	A	0.0	0.02	A				0.0	0.02	A	1.1	0.03	A
INTERSECTION	*1.3*		A	*1.5*		*A*				*9.9*		A	*4.1*		A
Midday Peak Hour															
Eastbound LTR	12.2	0.12	B	17.7	0.25	C				*	15.01	F	21.1	0.41	C
Westbound LTR	11.7	0.10	B	15.7	0.19	C				110.3	0.77	F	21.6	0.40	C
Northbound Left	8.1	0.01	A	8.8	0.02	A				11.4	0.03	B	2.9	0.05	A
Through	0.0	0.20	A	0.0	0.34	A				0.0	0.91	A	4.1	0.52	A
Right	0.0	0.02	A	0.0	0.02	A				0.0	0.02	A	1.1	0.03	A
Southbound Left	8.1	0.03	A	9.0	0.05	A				14.9	0.12	B	6.0	0.22	A
Through	0.0	0.11	A	0.0	0.17	A				0.0	0.34	A	3.5	0.40	A
Right	0.0	0.01	A	0.0	0.01	A				0.0	0.01	A	1.6	0.02	A
INTERSECTION	*2.0*		A	*2.4*		*A*				*312.1*		F	*4.8*		A
PM Peak Hour															
Eastbound LTR	15.3	0.14	C	53.6	0.53	F				*	*	F	29.7	0.41	C
Westbound LTR	16.3	0.27	C	65.6	0.78	F				893.1	2.65	F	49.5	0.74	D
Northbound Left	9.1	0.01	A	11.0	0.02	B				20.3	0.06	C	4.8	0.14	A
Through	0.0	0.34	A	0.0	0.63	A				0.0	1.10	A	6.0	0.67	A
Right	0.0	0.01	A	0.0	0.01	A				0.0	0.01	A	0.8	0.02	A
Southbound Left	8.7	0.01	A	10.8	0.02	B				17.1	0.04	C	2.6	0.10	A
Through	0.0	0.20	A	0.0	0.33	A				0.0	0.62	A	6.8	0.78	A
Right	0.0	0.00	A	0.0	0.00	A				0.0	0.00	A	0.7	0.01	A
INTERSECTION	*2.0*		A	*6.0*		*A*				*		F	*8.4*		A
Saturday Peak Hour															
Eastbound LTR	10.3	0.02	B	12.1	0.03	B				28.5	0.10	D	21.3	0.08	C
Westbound LTR	10.4	0.00	B	12.7	0.01	B				40.3	0.03	E	0.3	0.02	A
Northbound Left	7.8	0.00	A	8.2	0.01	A				10.2	0.01	B	1.2	0.01	A
Through	0.0	0.19	A	0.0	0.33	A				0.0	0.90	A	1.6	0.44	A
Right	0.0	0.00	A	0.0	0.00	A				0.0	0.00	A	0.0	0.00	A
Southbound Left	0.0	0.00	A	0.0	0.00	A				0.0	0.00	A	0.0	0.00	A
Through	0.0	0.08	A	0.0	0.13	A				0.0	0.29	A	1.0	0.29	A
Right	0.0	0.00	A	0.0	0.00	A				0.0	0.00	A	1.2	0.00	A
INTERSECTION	*0.3*		A	*0.3*		*A*				*0.3*		A	*1.5*		A

Level of Service for Unsignalized Intersection - Yaphank Avenue (CR 21) at Gerard Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Westbound LR	15.2	0.25	C	35.6	0.58	E				198.6	1.18	F	20.1	0.40	C
Northbound Thr	0.0	0.38	A	0.0	0.62	A				0.0	0.93	A	0.0	0.46	A
Right	0.0	0.01	A	0.0	0.01	A				0.0	0.01	A	0.0	0.01	A
Southbound Left	9.4	0.03	A	10.9	0.06	B				14.6	0.09	B	14.0	0.09	B
Through	0.0	0.17	A	0.0	0.49	A				0.0	0.83	A	0.0	0.42	A
INTERSECTION	*1.9*		A	*2.9*		*A*				*10.0*		A	*1.2*		A
Midday Peak Hour															
Westbound LR	10.9	0.08	B	13.6	0.16	B				49.3	0.50	E	14.4	0.17	B
Northbound Thr	0.0	0.21	A	0.0	0.34	A				0.0	0.87	A	0.0	0.44	A
Right	0.0	0.01	A	0.0	0.01	A				0.0	0.01	A	0.0	0.01	A
Southbound Left	8.4	0.03	A	8.9	0.05	A				14.1	0.11	B	13.1	0.10	B
Through	0.0	0.16	A	0.0	0.26	A				0.0	0.61	A	0.0	0.30	A
INTERSECTION	*1.3*		A	*1.3*		*A*				*1.7*		A	*0.7*		A
PM Peak Hour															
Westbound LR	12.1	0.06	B	19.6	0.16	C				74.3	0.49	F	16.7	0.13	C
Northbound Thr	0.0	0.29	A	0.0	0.57	A				0.0	1.04	A	0.0	0.52	A
Right	0.0	0.01	A	0.0	0.01	A				0.0	0.01	A	0.0	0.01	A
Southbound Left	8.7	0.07	A	11.1	0.15	B				19.7	0.30	C	18.8	0.29	C
Through	0.0	0.26	A	0.0	0.47	A				0.0	1.07	A	0.0	0.53	A
INTERSECTION	*1.0*		A	*1.1*		*A*				*1.5*		A	*0.7*		A
Saturday Peak Hour															
Westbound LR	10.8	0.10	B	12.6	0.18	B				62.3	0.65	F	18.8	0.36	C
Northbound Thr	0.0	0.15	A	0.0	0.27	A				0.0	0.85	A	5.2	0.50	A
Right	0.0	0.01	A	0.0	0.02	A				0.0	0.02	A	0.8	0.03	A
Southbound Left	8.0	0.05	A	8.7	0.09	A				14.9	0.20	B	10.4	0.41	B
Through	0.0	0.13	A	0.0	0.22	A				0.0	0.57	A	3.3	0.33	A
INTERSECTION	*2.1*		A	*2.0*		*A*				*3.0*		A	*5.2*		A

Level of Service for Unsignalized Intersection - Yaphank Avenue (CR 21) at Glover Drive

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left	16.9	0.14	C	37.1	0.37	E				*	4.12	F	40.0	0.79	D
Right	9.9	0.04	A	15.2	0.10	C				35.1	0.42	E	8.8	0.24	A
Northbound Left	8.1	0.08	A	10.3	0.18	B				14.5	0.30	B	14.6	0.58	B
Through	0.0	0.36	A	0.0	0.59	A				0.0	0.67	A	6.3	0.52	A
ıthbound Through	0.0	0.14	A	0.0	0.44	A				0.0	0.72	A	17.0	0.74	B
Right	0.0	0.03	A	0.0	0.04	A				0.0	0.09	A	2.8	0.21	A
INTERSECTION	*1.8*		A	*2.2*		*A*				*1486.5*		F	*15.6*		B

Midday Peak Hour															
Eastbound Left	13.1	0.18	B	19.1	0.35	C				*	3.17	F	28.8	0.66	C
Right	10.0	0.08	A	11.6	0.14	B				15.6	0.29	C	6.5	0.30	A
Northbound Left	8.0	0.05	A	8.6	0.08	A				9.7	0.16	A	5.9	0.30	A
Through	0.0	0.19	A	0.0	0.31	A				0.0	0.69	A	8.1	0.59	A
ıthbound Through	0.0	0.13	A	0.0	0.23	A				0.0	0.36	A	13.3	0.40	B
Right	0.0	0.03	A	0.0	0.04	A				0.0	0.28	A	4.1	0.55	A
INTERSECTION	*3.0*		A	*3.4*		*A*				*1674.1*		F	*11.8*		B

PM Peak Hour															
Eastbound Left	15.5	0.30	C	47.8	0.74	E				*	4.11	F	41.2	0.78	D
Right	11.8	0.12	B	18.0	0.26	C				89.9	0.81	F	9.2	0.35	A
Northbound Left	8.5	0.04	A	10.0	0.07	A				16.0	0.24	C	9.6	0.41	A
Through	0.0	0.23	A	0.0	0.49	A				0.0	0.86	A	5.9	0.61	A
ıthbound Through	0.0	0.27	A	0.0	0.48	A				0.0	0.88	A	13.3	0.71	B
Right	0.0	0.01	A	0.0	0.02	A				0.0	0.25	A	2.5	0.41	A
INTERSECTION	*3.1*		A	*5.9*		*A*				*1037.5*		F	*12.1*		B

Saturday Peak Hour															
Eastbound Left	10.9	0.09	B	13.4	0.16	B				508.0	2.02	F	25.4	0.55	C
Right	9.6	0.07	A	11.0	0.11	B				14.3	0.24	B	5.6	0.25	A
Northbound Left	7.7	0.02	A	8.1	0.04	A				9.1	0.10	A	5.1	0.18	A
Through	0.0	0.13	A	0.0	0.24	A				0.0	0.62	A	6.0	0.46	A
ıthbound Through	0.0	0.12	A	0.0	0.22	A				0.0	0.35	A	10.2	0.32	B
Right	0.0	0.02	A	0.0	0.02	A				0.0	0.27	A	3.0	0.45	A
INTERSECTION	*2.4*		A	*2.2*		*A*				*85.3*		F	*9.7*		A

Level of Service for Signalized Intersection - Yaphank Avenue (CR 21) at Horseblock Road (CR 16)

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left	1.6	0.11	A	10.4	0.41	B				15.4	0.57	B	35.0	0.61	C
Through	1.7	0.13	A	9.8	0.24	A				10.4	0.31	B	6.1	0.27	A
Right	0.1	0.02	A	4.9	0.04	A				4.9	0.04	A	2.1	0.03	A
Westbound Left	4.9	0.04	A	5.4	0.08	A				5.5	0.08	A	11.6	0.13	B
Through-Right	10.4	0.26	B	18.0	0.67	B				84.4	1.12	F	47.0	1.02	D
Southbound Left	22.8	0.40	C	25.4	0.56	C				31.1	31.10	C	19.4	0.36	B
Through	19.6	0.22	B	19.7	0.28	B				19.5	19.50	B	37.0	0.90	D
Right	8.9	0.05	A	14.1	0.51	B				167.4	1.30	F	28.4	0.82	C
INTERSECTION	*9.7*		*A*	*16.2*		*B*				*54.0*		D	*33.3*		C
Midday Peak Hour															
Eastbound Left	7.2	0.14	A	14.5	0.42	B				30.1	0.74	C	37.3	0.50	D
Through	11.3	0.23	B	14.9	0.40	B				15.3	0.49	B	3.6	0.33	A
Right	5.9	0.03	A	5.8	0.05	A				4.6	0.06	A	0.6	0.04	A
Westbound Left	5.7	0.10	A	7.3	0.18	A				8.1	0.20	A	21.2	0.32	C
Through-Right	12.3	0.39	B	20.6	0.66	C				38.3	0.93	D	27.7	0.82	C
Southbound Left	27.4	0.47	C	29.9	0.62	C				46.7	0.88	D	38.9	0.55	D
Through	22.0	0.21	C	17.9	0.55	B				21.0	0.65	C	37.0	0.41	D
Right	9.1	0.07	A	10.2	0.17	B				11.6	0.27	B	21.0	0.40	C
INTERSECTION	*13.6*		*B*	*18.8*		*B*				*30.1*		C	*24.2*		C
PM Peak Hour															
Eastbound Left	6.8	0.13	A	17.0	0.65	B	31.5	0.80	C	679.3	2.47	F	66.2	1.04	E
Through	12.3	0.48	B	23.8	0.87	C	39.7	0.98	D	172.0	1.33	F	31.4	1.02	C
Right	2.7	0.04	A	3.8	0.06	A	4.5	0.07	A	5.3	0.07	A	1.2	0.05	A
Westbound Left	8.0	0.06	A	8.9	0.12	A	12.3	0.15	B	12.3	0.15	B	36.8	0.37	D
Through-Right	15.1	0.24	B	19.6	0.46	B	23.3	0.53	C	25.6	0.65	C	28.3	0.70	C
Southbound Left	37.5	0.78	D	123.6	1.17	F	50.5	0.95	D	199.7	1.37	F	40.4	0.90	D
Through	25.1	0.46	C	27.2	0.58	C	20.4	0.47	C	26.6	0.71	C	57.8	0.95	E
Right	8.8	0.06	A	10.2	0.26	B	10.2	0.26	B	13.9	0.55	B	6.3	0.63	A
INTERSECTION	*18.9*		*B*	*40.6*		*D*	*35.4*		*D*	*211.9*		F	*37.1*		D
Saturday Peak Hour															
Eastbound Left	5.2	0.08	A	7.4	0.27	A				18.0	0.63	B	27.9	0.46	C
Through	8.6	0.27	A	14.0	0.50	B				15.6	0.59	B	6.5	0.43	A
Right	4.5	0.04	A	4.9	0.06	A				4.1	0.07	A	1.9	0.05	A
Westbound Left	4.7	0.06	A	6.5	0.12	A				7.7	0.14	A	18.6	0.22	B
Through-Right	9.2	0.22	A	14.6	0.41	B				20.9	0.61	C	17.2	0.53	B
Southbound Left	27.3	0.40	C	27.5	0.52	C				33.8	0.75	C	32.7	0.51	C
Through	23.0	0.16	C	21.2	0.20	C				19.9	0.22	B	29.2	0.40	C
Right	9.0	0.04	A	9.3	0.11	A				10.0	0.18	A	14.5	0.31	B
INTERSECTION	*10.8*		*B*	*14.9*		*B*				*19.7*		B	*16.6*		B

Level of Service for Unsignalized Intersection - Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Westbound Left	31.0	0.20	D	113.3	0.64	F	12.9	0.08	B	12.9	0.08	B	10.9	0.07	B
Right	24.7	0.68	C	682.5	2.45	F	255.3	1.51	F	615.9	2.32	F	103.9	1.17	F
Northbound Thr	0.0	0.33	A	0.0	0.46	A	49.6	1.00	D	51.2	1.00	D	47.3	0.99	D
Right	0.0	0.20	A	0.0	0.27	A			A			A			A
Southbound Left	10.4	0.07	B	12.8	0.13	B	11.6	0.31	B	11.6	0.31	B	13.3	0.31	B
Through	0.0	0.10	A	0.0	0.16	A	12.2	0.39	B	13.5	0.51	B	13.3	0.50	B
INTERSECTION	*6.4*		*A*	*239.2*		*F*	*112.5*		*F*	*284.3*		F	*63.7*		E

Midday Peak Hour															
Westbound Left	31.7	0.46	D	205.2	1.19	F	12.3	0.21	B	12.3	0.21	B	11.1	0.20	B
Right	29.8	0.84	D	215.3	1.42	F	102.7	1.16	F	342.3	1.71	F	25.4	0.93	C
Northbound Thr	0.0	0.16	A	0.0	0.22	A	36.6	0.83	D	76.4	1.05	E	46.0	0.94	D
Right	0.0	0.11	A	0.0	0.15	A			A			A			A
Southbound Left	8.6	0.10	A	9.3	0.16	A	43.7	0.76	D	45.4	0.77	D	25.2	0.59	C
Through	0.0	0.13	A	0.0	0.21	A	19.7	0.57	B	23.5	0.74	C	20.2	0.68	C
INTERSECTION	*13.3*		*B*	*91.1*		*F*	*54.9*		*D*	*164.1*		F	*28.1*		C

PM Peak Hour															A
Westbound Left	58.6	0.44	F	684.6	1.97	F	32.1	0.31	C	24.6	0.19	C	29.5	0.26	C
Right	13.9	0.39	B	46.5	0.91	E	12.0	0.78	B	28.0	0.95	C	6.3	0.72	A
Northbound Thr	0.0	0.07	A	0.0	0.10	A	5.5	0.47	A	7.7	0.55	A	5.4	0.47	A
Right	0.0	0.31	A	0.0	0.42	A			A			A			A
Southbound Left	8.1	0.16	A	8.6	0.24	A	9.5	0.59	A	17.5	0.69	B	10.5	0.61	B
Through	0.0	0.28	A	0.0	0.49	A	9.0	0.66	A	73.9	1.11	E	19.6	0.94	B
INTERSECTION	*4.0*		*A*	*22.1*		*C*	*9.1*		*A*	*47.7*		D	*13.9*		B

Saturday Peak Hour															
Westbound Left	34.1	0.28	D	165.0	0.89	F	23.7	0.22	C	18.7	0.13	B	19.0	0.16	B
Right	14.1	0.45	B	35.9	0.86	E	17.0	0.83	B	158.8	1.29	F	10.8	0.79	B
Northbound Thr	0.0	0.16	A	0.0	0.22	A	16.4	0.51	B	36.1	0.90	D	20.4	0.65	C
Right	0.0	0.17	A	0.0	0.23	A			A			A			A
Southbound Left	8.8	0.16	A	9.8	0.25	A	10.6	0.53	B	23.2	0.70	C	14.4	0.59	B
Through	0.0	0.15	A	0.0	0.22	A	6.9	0.33	A	12.1	0.53	B	8.1	0.44	A
INTERSECTION	*4.9*		*A*	*13.7*		*B*	*13.1*		*B*	*64.6*		E	*13.2*		B

Level of Service for Horseblock Road (CR 16) at Woodside Avenue (CR 99)

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound CR 16	3.0	0.10	A	4.2	0.21	A				5.5	0.33	A	5.5	0.33	A
Right	1.8	0.01	A	2.0	0.02	A				2.4	0.02	A	2.4	0.02	A
Westbound CR 99	24.8	0.25	C	20.0	0.39	B				20.7	0.46	C	20.7	0.46	C
INTERSECTION	*10.3*		*B*	*9.3*		*A*				*10.2*		B	*10.2*		B

Midday Peak Hour															
Eastbound CR 16	1.8	0.17	A	3.3	0.26	A				4.0	0.27	A	4.0	0.27	A
Right	0.7	0.02	A	1.0	0.02	A				1.2	0.03	A	1.2	0.03	A
Westbound CR 99	22.6	0.48	C	30.7	0.58	C				30.1	0.64	C	28.4	0.64	C
INTERSECTION	*10.7*		*B*	*15.2*		*C*				*16.2*		C	*15.4*		C

PM Peak Hour															
Eastbound CR 16	0.7	0.22	A	2.5	0.37	A				3.7	0.43	A	3.8	0.43	A
Right	0.0	0.01	A	0.5	0.01	A				0.6	0.02	A	0.6	0.02	A
Westbound CR 99	23.5	0.31	C	23.5	0.60	C				32.2	0.79	C	32.4	0.79	C
INTERSECTION	*5.0*		*A*	*9.4*		*A*				*15.9*		C	*16.1*		C

Saturday Peak Hour															
Eastbound CR 16	1.1	0.17	A	2.0	0.25	A				2.4	0.27	A	2.4	0.27	A
Right	0.4	0.01	A	0.6	0.02	A				0.7	0.02	A	0.7	0.02	A
Westbound CR 99	25.6	0.29	C	32.3	0.40	C				30.6	0.48	C	26.1	0.48	C
INTERSECTION	*7.0*		*A*	*10.0*		*A*				*11.5*		B	*10.1*		B

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at Brookhaven Town Landfill

AM Peak Hour

Movement	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
	Delay (sec/veh)	v/c Ratio	LOS	Delay (sec/veh)	v/c Ratio	LOS	Delay (sec/veh)	v/c Ratio	LOS	Delay (sec/veh)	v/c Ratio	LOS	Delay (sec/veh)	v/c Ratio	LOS
Eastbound Left				250.7	1.41	F	22.2	0.67	C	616.6	2.30	F	26.4	0.60	C
Through	8.1	0.18	A	5.2	0.23	A	2.1	0.20	A	2.1	0.20	A	5.2	0.24	A
Right	3.5	0.05	A	1.5	0.05	A	0.6	0.05	A	0.6	0.05	A	1.5	0.05	A
Westbound Left	2.4	0.05	A	4.9	0.08	A	2.0	0.07	A	2.0	0.07	A	18.5	0.16	B
Through	8.1	0.54	A	28.1	0.94	C	9.3	0.79	A	9.5	0.79	A	37.0	0.92	D
Right				1.2	0.24	A	0.6	0.21	A	3.9	0.75	A	11.4	0.76	B
Northbound Left	17.9	0.08	B	23.3	0.16	C	37.7	0.37	D	46.6	0.48	D	36.6	0.34	D
Through				0.2	0.07	A	0.3	0.08	A	0.3	0.08	A	0.4	0.10	A
Right	7.9	0.07	A			A			A			A			A
Southbound Left				23.1	0.15	C	36.5	0.33	D	273.1	1.46	F	44.2	0.68	D
Through				0.3	0.06	A	0.5	0.08	A	12.7	0.52	B	1.0	0.26	A
Right						A			A			A			A
INTERSECTION	*8.0*		*A*	*31.6*		*C*	*8.0*		*A*	*100.3*		F	*21.5*		C

Midday Peak Hour

Eastbound Left				3.0	0.07	A				5.0	0.27	A	36.2	0.31	D
Through	10.3	0.26	B	3.2	0.29	A				3.5	0.34	A	14.4	0.46	B
Right	4.4	0.08	A	0.3	0.08	A				0.4	0.08	A	4.7	0.11	A
Westbound Left	3.9	0.11	A	9.5	0.19	A				7.9	0.22	A	14.6	0.36	B
Through	10.3	0.42	B	16.3	0.57	B				14.6	0.60	B	13.0	0.56	B
Right				3.4	0.04	A				2.8	0.15	A	2.4	0.15	A
Northbound Left	21.1	0.14	C	25.2	0.28	C				26.2	0.31	C	23.6	0.21	C
Through				0.7	0.18	A				0.8	0.20	A	4.9	0.23	A
Right	6.6	0.17	A			A						A			A
Southbound Left				26.3	0.33	C				36.7	0.65	D	33.7	0.48	C
Through				0.3	0.09	A				1.1	0.25	A	1.3	0.27	A
Right						A						A			A
INTERSECTION	*10.0*		*A*	*9.9*		*A*				*9.9*		A	*14.3*		B

PM Peak Hour

Eastbound Left				5.9	0.12	A				30.1	0.72	C	46.3	0.60	D
Through	13.3	0.39	B	8.1	0.61	A				8.3	0.62	A	43.1	0.95	D
Right	10.5	0.00	B	3.0	0.00	A				3.0	0.00	A	12.7	0.01	B
Westbound Left	1.0	0.01	A	7.7	0.02	A				6.3	0.02	A	12.7	0.03	B
Through	7.1	0.37	A	20.0	0.61	B				23.1	0.74	C	29.1	0.85	C
Right				5.0	0.07	A				5.2	0.25	A	4.4	0.27	A
Northbound Left	23.2	0.04	C	24.1	0.09	C				33.0	0.27	C	38.3	0.19	D
Through				2.4	0.07	A				2.8	0.07	A	29.9	0.22	C
Right	10.5	0.05	B			A						A			A
Southbound Left				45.0	0.77	D				1113.3	3.42	F	48.9	0.98	D
Through				1.0	0.24	A				144.8	1.24	F	34.4	0.91	C
Right						A						A			A
INTERSECTION	*11.3*		*B*	*14.5*		*B*				*310.4*		F	*38.3*		D

Saturday Peak Hour

Eastbound Left				3.3	0.07	A				6.1	0.28	A	29.1	0.21	C
Through	11.5	0.23	B	3.6	0.26	A				4.1	0.30	A	14.6	0.42	B
Right	4.3	0.15	A	0.4	0.16	A				0.4	0.16	A	3.1	0.21	A
Westbound Left	6.3	0.15	A	15.0	0.25	B				12.9	0.28	B	37.3	0.55	D
Through	11.6	0.41	B	21.2	0.59	C				19.8	0.61	B	28.4	0.67	C
Right				6.2	0.04	A				5.2	0.16	A	4.8	0.17	A
Northbound Left	22.6	0.26	C	27.3	0.47	C				29.2	0.52	C	27.7	0.41	C
Through				1.1	0.28	A				2.0	0.30	A	3.3	0.34	A
Right	5.9	0.26	A			A						A			A
Southbound Left				25.7	0.35	C				38.9	0.69	D	28.5	0.35	C
Through				0.3	0.09	A				1.0	0.24	A	1.2	0.26	A
Right						A						A			A
INTERSECTION	*10.9*		*B*	*12.3*		*B*				*12.5*		B	*18.9*		B

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
East 16 Left	12.9	0.22	B	34.1	0.65	C	10.6	0.35	B	8.5	0.40	A	10.2	0.29	B
Through	27.1	0.78	C	203.4	1.39	F	61.5	1.06	E	197.3	1.39	F	16.1	0.75	B
Right	3.9	0.02	A	4.0	0.03	A	2.2	0.02	A	2.2	0.02	A	1.8	0.02	A
West 16 Left	16.8	0.35	B	20.7	0.48	C	22.6	0.55	C	22.6	0.55	C	16.9	0.49	B
Through	17.8	0.55	B	27.3	0.80	C	15.6	0.66	B	17.1	0.70	B	9.9	0.37	A
Right	3.7	0.11	A	3.4	0.15	A	2.3	0.12	A	2.3	0.12	A	2.3	0.12	A
North 101 Left	11.7	0.07	B	12.3	0.12	B	17.3	0.15	B	17.3	0.15	B	17.3	0.15	B
Through	19.3	0.37	B	23.4	0.65	C	46.6	0.92	D	46.6	0.92	D	46.6	0.92	D
Right	5.0	0.20	A	4.7	0.26	A	6.7	0.33	A	6.9	0.33	A	6.7	0.33	A
South 101 Left	13.1	0.22	B	17.4	0.44	B	26.3	0.52	C	26.3	0.52	C	26.3	0.52	C
Through	17.4	0.39	B	19.9	0.58	B	32.6	0.78	C	32.6	0.78	C	32.6	0.78	C
Right	6.0	0.09	A	5.5	0.12	A	7.4	0.15	A	7.4	0.15	A	7.4	0.15	A
INTERSECTION	*18.0*		*B*	*60.7*		*E*	*35.2*		*D*	*73.1*		E	*23.5*		C
Midday Peak Hour															
East 16 Left	7.7	0.11	A	10.1	0.25	B	7.8	0.19	A	7.9	0.21	A	10.6	0.18	B
Through	21.0	0.74	C	62.9	1.06	E	48.5	1.01	D	56.0	1.05	E	14.3	0.55	B
Right	2.6	0.14	A	1.5	0.18	A	1.5	0.18	A	1.4	0.18	A	3.9	0.18	A
West 16 Left	30.3	0.70	C	109.6	1.09	F	54.3	0.89	D	53.6	0.89	D	25.1	0.72	C
Through	13.5	0.49	B	19.5	0.73	B	15.2	0.66	B	15.9	0.69	B	8.7	0.36	A
Right	1.5	0.09	A	2.8	0.12	A	2.3	0.11	A	2.5	0.11	A	1.5	0.11	A
North 101 Left	11.5	0.05	B	11.9	0.09	B	13.8	0.10	B	13.8	0.10	B	13.8	0.10	B
Through	17.5	0.27	B	19.8	0.48	B	22.8	0.54	C	24.0	0.61	C	24.0	0.61	C
Right	5.7	0.12	A	5.2	0.16	A	6.0	0.18	A	6.0	0.18	A	6.0	0.18	A
South 101 Left	11.9	0.09	B	12.8	0.17	B	15.0	0.20	B	15.4	0.22	B	15.4	0.22	B
Through	16.2	0.25	B	18.0	0.44	B	20.8	0.49	C	20.8	0.49	C	20.8	0.49	C
Right	6.1	0.09	A	5.5	0.12	A	6.3	0.13	A	6.3	0.13	A	6.3	0.13	A
INTERSECTION	*16.1*		*B*	*31.5*		*C*	*25.3*		*C*	*27.0*		C	*16.2*		B
PM Peak Hour															
East 16 Left	12.3	0.06	B	15.9	0.24	B	15.7	0.24	B	14.7	0.24	B	20.6	0.20	C
Through	35.7	0.86	D	162.2	1.30	F	142.8	1.26	F	168.6	1.32	F	24.4	0.70	C
Right	6.2	0.14	A	4.5	0.19	A	4.3	0.18	A	4.4	0.18	A	6.0	0.17	A
West 16 Left	92.1	0.97	F	201.0	1.32	F	104.1	1.07	F	103.2	1.07	F	93.7	1.04	F
Through	26.4	0.53	C	53.6	0.98	D	37.3	0.91	D	184.9	1.34	F	19.7	0.71	B
Right	8.9	0.19	A	3.8	0.25	A	3.1	0.23	A	2.7	0.23	A	3.0	0.23	A
North 101 Left	13.2	0.09	B	15.0	0.21	B	17.5	0.24	B	17.5	0.24	B	17.5	0.24	B
Through	22.9	0.53	C	32.8	0.85	C	45.9	0.94	D	46.5	0.95	D	46.5	0.95	D
Right	6.4	0.09	A	5.9	0.11	A	6.6	0.13	A	6.6	0.13	A	6.6	0.13	A
South 101 Left	14.7	0.23	B	21.0	0.47	C	23.0	0.47	C	23.0	0.47	C	23.0	0.47	C
Through	19.8	0.38	B	24.2	0.66	C	28.6	0.73	C	28.6	0.73	C	28.6	0.73	C
Right	5.9	0.10	A	5.3	0.14	A	5.9	0.15	A	5.9	0.15	A	5.9	0.15	A
INTERSECTION	*27.3*		*C*	*64.0*		*E*	*56.4*		*E*	*96.3*		F	*30.1*		C
Saturday Peak Hour															
East 16 Left	9.8	0.20	A	22.4	0.57	C				27.5	0.65	C	13.8	0.32	B
Through	20.1	0.72	C	49.6	1.02	D				56.2	1.05	E	12.9	0.55	B
Right	2.2	0.05	A	1.5	0.06	A				1.6	0.06	A	2.9	0.06	A
West 16 Left	11.9	0.34	B	16.0	0.48	B				16.5	0.48	B	17.4	0.42	B
Through	14.1	0.50	B	17.2	0.73	B				18.2	0.75	B	14.1	0.40	B
Right	2.3	0.06	A	2.6	0.08	A				2.9	0.08	A	3.8	0.08	A
North 101 Left	11.7	0.08	B	12.5	0.15	B				12.5	0.15	B	12.5	0.15	B
Through	17.6	0.29	B	20.2	0.52	C				21.1	0.58	C	21.1	0.58	C
Right	6.0	0.09	A	5.6	0.12	A				5.6	0.12	A	5.6	0.12	A
South 101 Left	12.0	0.11	B	13.3	0.22	B				13.8	0.24	B	13.8	0.24	B
Through	16.3	0.28	B	20.0	0.51	B				20.0	0.51	B	20.0	0.51	B
Right	6.3	0.07	A	5.8	0.10	A				5.8	0.10	A	5.8	0.10	A
INTERSECTION	*15.4*		*B*	*24.1*		*C*				*26.0*		C	*16.0*		B

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at Bellport Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound LT	9.1	0.44	A	23.2	0.82	C	31.3	0.87	C	114.6	1.18	F	17.3	0.65	B
Right	1.3	0.19	A	3.5	0.28	A	5.5	0.29	A	6.6	0.30	A	3.0	0.28	A
Westbound LT	12.3	0.42	B	20.4	0.69	C	27.2	0.73	C	78.2	1.06	E	13.1	0.43	B
Right	7.2	0.04	A	10.6	0.08	B	13.4	0.08	B	13.8	0.08	B	5.7	0.08	A
Northbound LTR	36.5	0.79	D	72.1	1.01	E	49.1	0.92	D	49.1	0.92	D	49.1	0.92	D
Southbound LTR	19.5	0.40	B	21.4	0.56	C	18.7	0.53	B	18.7	0.53	B	18.7	0.53	B
INTERSECTION	*16.0*		*B*	*28.9*		*C*	*28.7*		*C*	*71.1*		E	*20.1*		C

Midday Peak Hour															
Eastbound LT	10.2	0.53	B	24.9	0.86	C	32.4	0.86	C	40.3	0.92	D	15.2	0.44	B
Right	1.0	0.27	A	2.9	0.38	A	6.6	0.38	A	6.7	0.38	A	5.3	0.36	A
Westbound LT	15.5	0.62	B	38.0	0.93	D	36.2	0.93	D	41.6	0.96	D	12.5	0.53	B
Right	7.4	0.04	A	10.1	0.06	B	8.9	0.06	A	9.3	0.06	A	5.6	0.05	A
Northbound LTR	41.5	0.88	D	158.3	1.26	F	158.3	1.26	F	158.3	1.26	F	158.3	1.26	F
Southbound LTR	15.2	0.23	B	17.3	0.36	B	17.3	0.36	B	17.3	0.36	B	17.3	0.36	B
INTERSECTION	*18.4*		*B*	*56.0*		*E*	*57.8*		*E*	*61.0*		E	*45.9*		D

PM Peak Hour															
Eastbound LT	12.7	0.55	B	62.7	1.04	E				909.0	2.94	F	11.9	0.53	B
Right	2.3	0.29	A	4.4	0.40	A				4.7	0.41	A	2.0	0.38	A
Westbound LT	14.7	0.40	B	26.8	0.78	C				94.0	1.15	F	19.5	0.63	B
Right	7.9	0.12	A	12.5	0.17	B				13.0	0.17	B	10.8	0.17	B
Northbound LTR	47.1	0.86	D	176.3	1.29	F				176.3	1.29	F	176.3	1.29	F
Southbound LTR	21.9	0.33	C	37.4	0.79	D				37.4	0.79	D	37.4	0.79	D
INTERSECTION	*18.7*		*B*	*59.1*		*E*				*286.2*		F	*40.4*		D

Saturday Peak Hour															
Eastbound LT	12.4	0.50	B	29.1	0.87	C				36.4	0.92	D	11.7	0.44	B
Right	2.1	0.32	A	4.4	0.45	A				4.6	0.45	A	2.5	0.43	A
Westbound LT	12.2	0.49	B	22.8	0.78	C				24.5	0.81	C	9.6	0.44	A
Right	7.3	0.05	A	10.5	0.08	B				10.6	0.08	B	2.9	0.08	A
Northbound LTR	35.2	0.81	D	87.0	1.07	F				87.0	1.07	F	87.0	1.07	F
Southbound LTR	14.4	0.26	B	16.5	0.38	B				16.5	0.38	B	16.5	0.38	B
INTERSECTION	*15.3*		*B*	*33.2*		*C*				*35.5*		D	*24.5*		C

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at LIE North Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Westbound LT	25.0	0.58	C	22.2	0.64	C	33.9	0.83	C	33.9	0.83	C	33.9	0.83	C
Right	5.5	0.23	A	3.9	0.24	A	5.9	0.29	A	5.9	0.29	A	5.9	0.29	A
Northbound Left	29.8	0.84	C	437.2	1.92	F	59.1	1.03	E	82.3	1.10	F	33.8	0.74	C
Through	8.5	0.35	A	12.6	0.54	B	14.1	0.48	B	14.1	0.48	B	11.8	0.48	B
Southbound TR	6.2	0.25	A	9.9	0.39	A	24.0	0.69	C	24.0	0.69	C	23.1	0.66	C
INTERSECTION	*16.2*		*B*	*98.2*		*F*	*30.9*		*C*	*36.1*		D	*25.3*		C

Midday Peak Hour															
Westbound LT	28.9	0.58	C	26.5	0.63	C	31.8	0.73	C	31.8	0.73	C	31.8	0.73	C
Right	7.4	0.27	A	5.7	0.29	A	6.9	0.32	A	6.9	0.32	A	6.9	0.32	A
Northbound Left	23.0	0.77	C	378.8	1.80	F	27.7	0.92	C	29.1	0.93	C	28.5	0.65	C
Through	7.2	0.41	A	10.4	0.61	B	13.1	0.58	B	13.2	0.58	B	13.4	0.58	B
Southbound TR	4.6	0.27	A	7.1	0.40	A	24.2	0.73	C	24.8	0.75	C	22.4	0.69	C
INTERSECTION	*13.1*		*B*	*78.0*		*E*	*22.8*		*C*	*23.3*		C	*22.5*		C

PM Peak Hour															
Westbound LT	34.9	0.71	C	66.6	1.01	E	63.1	0.98	E	63.1	0.98	E	51.5	0.94	D
Right	8.2	0.30	A	7.5	0.35	A	7.7	0.34	A	7.7	0.34	A	7.1	0.33	A
Northbound Left	53.6	1.01	D	836.1	2.82	F	59.2	1.02	E	249.4	1.49	F	49.0	1.00	D
Through	2.1	0.46	A	2.4	0.64	A	9.5	0.63	A	9.5	0.63	A	15.3	0.65	B
Southbound TR	4.4	0.31	A	5.6	0.44	A	47.5	0.96	D	47.5	0.96	D	49.9	0.98	D
INTERSECTION	*18.1*		*B*	*188.3*		*F*	*42.8*		*D*	*96.6*		F	*41.2*		D

Saturday Peak Hour															
Westbound LT	31.1	0.56	C	28.4	0.60	C	33.2	0.69	C	33.2	0.69	C	33.2	0.69	C
Right	7.9	0.49	A	18.4	0.64	B	13.5	0.62	B	13.5	0.62	B	13.5	0.62	B
Northbound Left	16.1	0.74	B	335.0	1.70	F	29.7	0.87	C	30.7	0.90	C	36.3	0.70	D
Through	2.8	0.45	A	6.6	0.65	A	14.5	0.63	B	14.7	0.63	B	13.0	0.63	B
Southbound TR	4.2	0.26	A	6.6	0.38	A	22.7	0.66	C	23.1	0.68	C	20.5	0.62	C
INTERSECTION	*10.4*		*B*	*67.1*		*E*	*22.6*		*C*	*23.0*		C	*22.7*		C

Level of Service for Signalized Intersection - Horseblock Road (CR 16) at LIE South Service Road

AM Peak Hour	2010 Existing Volumes			2025 No Build Volumes			2025 Mitigated No Build Volumes			2025 Build Volumes			2025 Mitigated Build Volumes		
Movement	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**	**Delay (sec/veh)**	**v/c Ratio**	**LOS**
Eastbound Left	25.2	0.26	C	20.2	0.20	C	20.2	0.20	C	20.2	0.20	C	20.5	0.22	C
Through	24.2	0.19	C	19.7	0.15	B	19.7	0.15	B	19.7	0.15	B	19.8	0.17	B
Right	10.6	0.74	B	106.1	1.16	F	106.1	1.16	F	269.3	1.54	F	22.6	0.91	C
Northbound TR	17.2	0.70	B	77.8	1.09	E	77.9	1.09	E	94.0	1.14	F	15.7	0.61	B
Southbound Left	35.7	0.46	D	121.8	1.11	F	114.4	1.11	F	114.4	1.11	F	50.3	0.82	D
Through	3.0	0.16	A	5.3	0.26	A	5.7	0.26	A	5.7	0.26	A	5.4	0.25	A
INTERSECTION	*15.5*		*B*	*72.7*		*E*	*72.0*		*E*	*134.8*		F	*20.1*		C

Midday Peak Hour

Eastbound Left	27.2	0.33	C	21.5	0.28	C	21.5	0.28	C	21.2	0.27	C	27.4	0.40	C
Through	25.7	0.25	C	20.6	0.21	C	20.6	0.21	C	20.3	0.21	C	25.6	0.30	C
Right	9.8	0.66	A	35.1	0.90	D	35.1	0.90	D	37.2	0.91	D	9.9	0.64	A
Northbound TR	21.1	0.80	C	139.9	1.25	F	139.8	1.25	F	151.3	1.27	F	17.0	0.67	B
Southbound Left	37.9	0.46	D	66.1	0.89	E	60.6	0.89	E	73.7	0.97	E	37.0	0.53	D
Through	3.1	0.22	A	5.2	0.34	A	5.1	0.34	A	5.3	0.34	A	3.8	0.30	A
INTERSECTION	*17.1*		*B*	*69.6*		*E*	*68.9*		*E*	*75.5*		E	*15.6*		B

PM Peak Hour

Eastbound Left	22.8	0.41	C	22.8	0.48	C				22.8	0.48	C	29.1	0.60	C
Through	20.2	0.24	C	19.9	0.28	B				19.9	0.28	B	24.0	0.35	C
Right	31.3	0.87	C	153.9	1.26	F				184.1	1.33	F	28.9	0.86	C
Northbound TR	44.0	0.93	D	295.4	1.59	F				492.4	2.04	F	40.0	0.97	D
Southbound Left	45.3	0.73	D	119.3	1.14	F				118.9	1.14	F	51.9	0.95	D
Through	6.3	0.34	A	7.8	0.49	A				11.1	0.49	B	6.7	0.44	A
INTERSECTION	*28.8*		*C*	*138.1*		*F*				*225.8*		F	*30.4*		C

Saturday Peak Hour

Eastbound Left	29.3	0.33	C	20.9	0.26	C				20.5	0.25	C	29.5	0.40	C
Through	27.6	0.24	C	19.8	0.19	B				19.5	0.18	B	27.4	0.29	C
Right	11.9	0.67	B	30.5	0.86	C				31.9	0.87	C	12.8	0.66	B
Northbound TR	31.9	0.88	C	272.7	1.54	F				294.6	1.59	F	20.6	0.72	C
Southbound Left	34.8	0.43	C	43.4	0.65	D				44.8	0.66	D	35.3	0.52	D
Through	3.3	0.22	A	6.6	0.35	A				7.3	0.36	A	4.4	0.30	A
INTERSECTION	*21.7*		*C*	*124.3*		*F*				*134.4*		F	*17.6*		B

APPENDIX D: EXISTING LEVEL OF SERVICE/CAPACITY WORKSHEETS

Intersections

1. Yaphank Avenue (CR 21) at LIE North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road

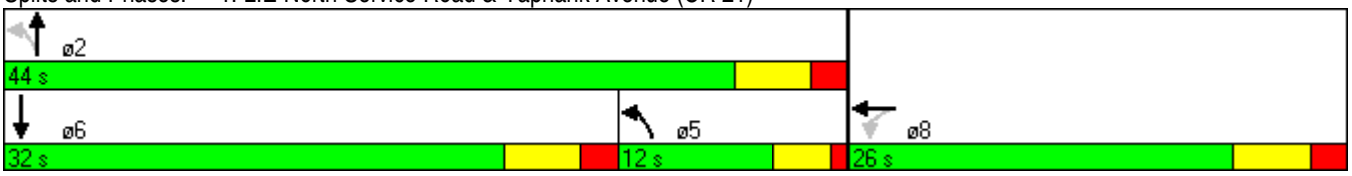
EXISTING AM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	1	217	107	198
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	3.0	12.0	12.0
Minimum Split (s)	22.0	7.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	12.1	49.9	49.9	37.9
Actuated g/C Ratio	0.17	0.71	0.71	0.54
v/c Ratio	0.45	0.31	0.10	0.16
Control Delay	22.5	4.7	1.8	6.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.5	4.7	1.8	6.5
LOS	C	A	A	A
Approach Delay	22.5		3.7	6.5
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.45
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 38.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

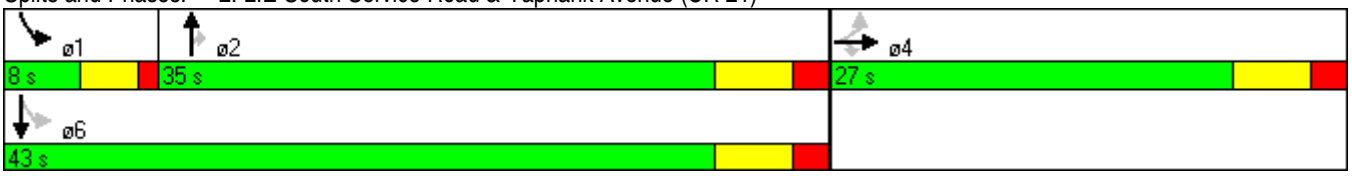


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	255	314	240	40	345
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	3.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	7.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.8	10.8	44.9	44.9	51.2	51.2
Actuated g/C Ratio	0.15	0.15	0.64	0.64	0.73	0.73
v/c Ratio	0.06	0.61	0.29	0.25	0.07	0.16
Control Delay	24.0	9.2	8.1	2.0	2.0	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	9.2	8.1	2.0	2.0	1.9
LOS	C	A	A	A	A	A
Approach Delay	10.0		5.5			1.9
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 5.3 Intersection LOS: A
Intersection Capacity Utilization 38.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	0	9	11	0	18	26	604	61	83	442	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.97	0.97	0.97	0.93	0.93	0.93
Hourly flow rate (vph)	1	0	11	13	0	21	27	623	63	89	475	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1351	1393	238	1103	1354	623	499			686		
vC1, stage 1 conf vol	654	654		676	676							
vC2, stage 2 conf vol	697	739		427	677							
vCu, unblocked vol	1351	1393	238	1103	1354	623	499			686		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	96	100	95	97			90		
cM capacity (veh/h)	236	273	764	330	306	429	1061			904		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	12	34	27	623	63	89	238	238	24
Volume Left	1	13	27	0	0	89	0	0	0
Volume Right	11	21	0	0	63	0	0	0	24
cSH	624	385	1061	1700	1700	904	1700	1700	1700
Volume to Capacity	0.02	0.09	0.03	0.37	0.04	0.10	0.14	0.14	0.01
Queue Length 95th (ft)	1	7	2	0	0	8	0	0	0
Control Delay (s)	10.9	15.2	8.5	0.0	0.0	9.4	0.0	0.0	0.0
Lane LOS	B	C	A			A			
Approach Delay (s)	10.9	15.2	0.3			1.4			
Approach LOS	B	C							

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	16	82	574	11	24	240
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.88	0.88	0.85	0.85
Hourly flow rate (vph)	19	96	652	12	28	282
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	991	652			665	
vC1, stage 1 conf vol	652					
vC2, stage 2 conf vol	339					
vCu, unblocked vol	991	652			665	
tC, single (s)	6.4	6.2			4.3	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.4	
p0 queue free %	96	79			97	
cM capacity (veh/h)	462	468			845	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	115	652	12	28	282
Volume Left	19	0	0	28	0
Volume Right	96	0	12	0	0
cSH	467	1700	1700	845	1700
Volume to Capacity	0.25	0.38	0.01	0.03	0.17
Queue Length 95th (ft)	24	0	0	3	0
Control Delay (s)	15.2	0.0	0.0	9.4	0.0
Lane LOS	C			A	
Approach Delay (s)	15.2	0.0		0.9	
Approach LOS	C				

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	42.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	41	24	95	544	208	48
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	48	28	108	618	234	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1068	234	234			
vC1, stage 1 conf vol	234					
vC2, stage 2 conf vol	834					
vCu, unblocked vol	1068	234	234			
tC, single (s)	6.6	6.4	4.2			
tC, 2 stage (s)	5.6					
tF (s)	3.7	3.5	2.3			
p0 queue free %	86	96	92			
cM capacity (veh/h)	349	767	1277			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	48	28	108	618	234	54
Volume Left	48	0	108	0	0	0
Volume Right	0	28	0	0	0	54
cSH	349	767	1277	1700	1700	1700
Volume to Capacity	0.14	0.04	0.08	0.36	0.14	0.03
Queue Length 95th (ft)	12	3	7	0	0	0
Control Delay (s)	16.9	9.9	8.1	0.0	0.0	0.0
Lane LOS	C	A	A			
Approach Delay (s)	14.3		1.2		0.0	
Approach LOS	B					

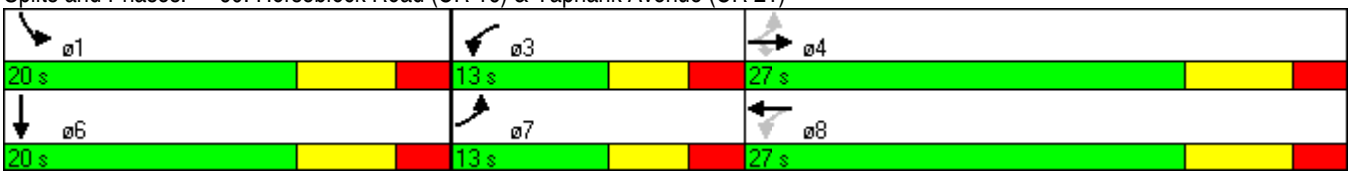
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	57	250	23	30	515	122	74
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	1.0	1.0	3.0	1.0	4.0	8.0
Minimum Split (s)	10.0	8.3	8.3	10.0	8.3	11.0	15.0
Total Split (s)	13.0	27.0	27.0	13.0	27.0	20.0	20.0
Total Split (%)	21.7%	45.0%	45.0%	21.7%	45.0%	33.3%	33.3%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	40.1	37.3	37.3	38.9	34.7	13.1	13.4
Actuated g/C Ratio	0.67	0.62	0.62	0.65	0.58	0.22	0.22
v/c Ratio	0.11	0.13	0.02	0.04	0.26	0.40	0.22
Control Delay	1.6	1.7	0.1	4.9	10.4	22.8	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.7	0.1	4.9	10.4	22.8	19.6
LOS	A	A	A	A	B	C	B
Approach Delay		1.6			10.1		21.6
Approach LOS		A			B		C

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 34.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	330	515	0	0	42
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	0	371	542	0	0	49
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	542				635	271
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	307				408	10
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	95
cM capacity (veh/h)	1142				521	976

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	93	93	93	93	271	271	49
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	49
cSH	1700	1700	1700	1700	1700	1700	976
Volume to Capacity	0.05	0.05	0.05	0.05	0.16	0.16	0.05
Queue Length 95th (ft)	0	0	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	8.9
Lane LOS							A
Approach Delay (s)	0.0				0.0		8.9
Approach LOS							A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	31	340	774	48	49	328
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.91	0.91	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	34	374	841	52	52	349
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1146	447			841	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1146	447			841	
tC, single (s)	6.9	7.0			4.4	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	80	32			93	
cM capacity (veh/h)	172	546			723	

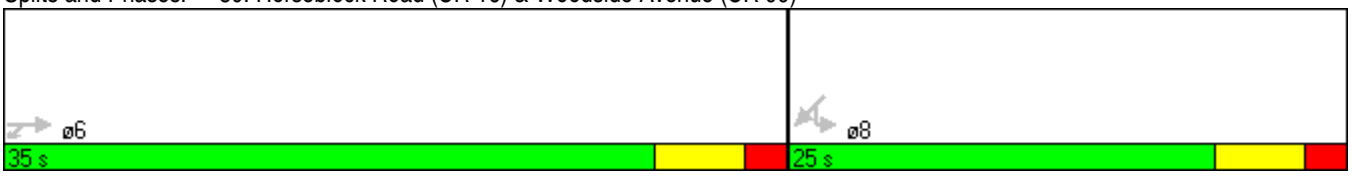
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	34	374	561	333	52	174	174
Volume Left	34	0	0	0	52	0	0
Volume Right	0	374	0	52	0	0	0
cSH	172	546	1700	1700	723	1700	1700
Volume to Capacity	0.20	0.68	0.33	0.20	0.07	0.10	0.10
Queue Length 95th (ft)	18	131	0	0	6	0	0
Control Delay (s)	31.0	24.7	0.0	0.0	10.4	0.0	0.0
Lane LOS	D	C			B		
Approach Delay (s)	25.2		0.0		1.3		
Approach LOS	D						

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	232	14	125
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	35.0	35.0	25.0
Total Split (%)	58.3%	58.3%	41.7%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	45.4	45.4	9.8
Actuated g/C Ratio	0.76	0.76	0.16
v/c Ratio	0.10	0.01	0.25
Control Delay	3.0	1.8	24.8
Queue Delay	0.0	0.0	0.0
Total Delay	3.0	1.8	24.8
LOS	A	A	C
Approach Delay	2.9		24.8
Approach LOS	A		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.25	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 22.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

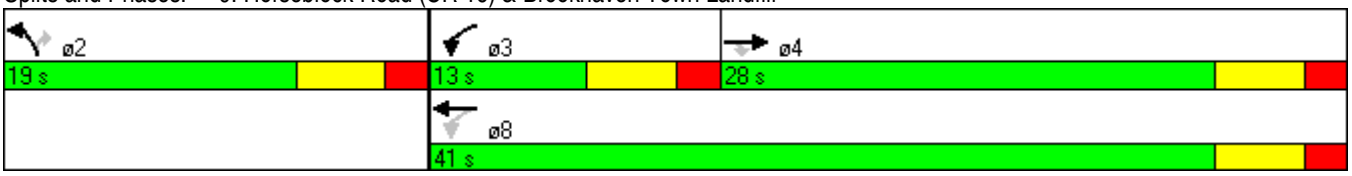


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	311	38	32	587	32	27
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	10.0	22.0	10.0	10.0
Total Split (s)	28.0	28.0	13.0	41.0	19.0	19.0
Total Split (%)	46.7%	46.7%	21.7%	68.3%	31.7%	31.7%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	32.0	32.0	37.0	37.0	15.0	15.0
Actuated g/C Ratio	0.53	0.53	0.62	0.62	0.25	0.25
v/c Ratio	0.18	0.05	0.05	0.54	0.08	0.07
Control Delay	8.1	3.5	2.4	8.1	17.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	3.5	2.4	8.1	17.9	7.9
LOS	A	A	A	A	B	A
Approach Delay	7.6			7.8	13.4	
Approach LOS	A			A	B	

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 15 (25%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 8.0 Intersection LOS: A
Intersection Capacity Utilization 40.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Brookhaven Town Landfill

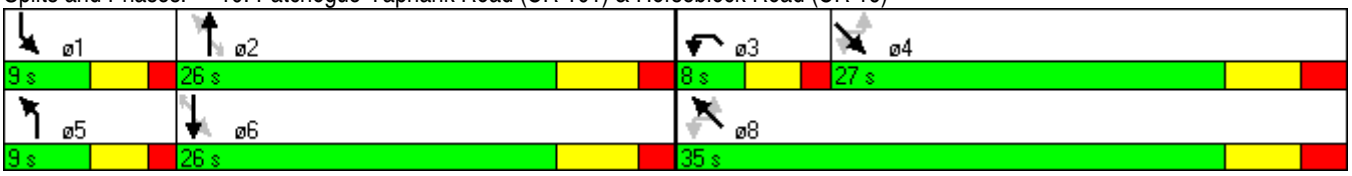


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	20	362	98	72	449	47	54	400	9	57	349	64
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	16.2	16.2	8.5	16.2	16.2	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.8	23.8	23.8	29.4	27.4	27.4	26.2	26.2	26.2	31.0	31.0	31.0
Actuated g/C Ratio	0.40	0.34	0.34	0.42	0.39	0.39	0.37	0.37	0.37	0.44	0.44	0.44
v/c Ratio	0.07	0.37	0.20	0.22	0.39	0.09	0.22	0.78	0.02	0.35	0.55	0.11
Control Delay	11.7	19.3	5.0	13.1	17.4	6.0	12.9	27.1	3.9	16.8	17.8	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	19.3	5.0	13.1	17.4	6.0	12.9	27.1	3.9	16.8	17.8	3.7
LOS	B	B	A	B	B	A	B	C	A	B	B	A
Approach Delay		16.1			15.9			25.0			15.8	
Approach LOS		B			B			C			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 18.0 Intersection LOS: B
Intersection Capacity Utilization 55.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

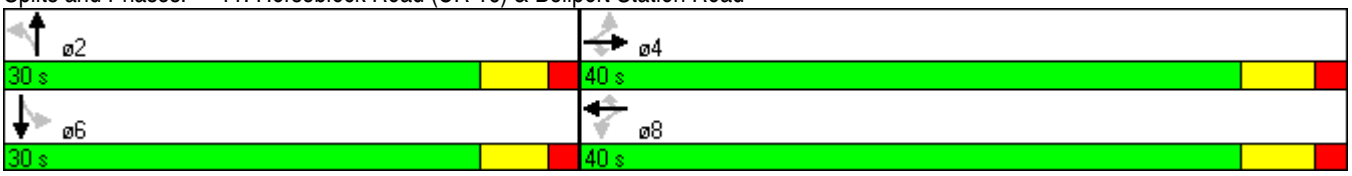


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	10	346	144	1	364	32	179	82	47	128
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		40.4	40.4		40.4	40.4		21.6		21.6
Actuated g/C Ratio		0.58	0.58		0.58	0.58		0.31		0.31
v/c Ratio		0.44	0.19		0.42	0.04		0.79		0.40
Control Delay		9.1	1.3		12.3	7.2		36.5		19.5
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		9.1	1.3		12.3	7.2		36.5		19.5
LOS		A	A		B	A		D		B
Approach Delay		6.9			11.9			36.5		19.5
Approach LOS		A			B			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 61.0% ICU Level of Service B
Analysis Period (min) 15

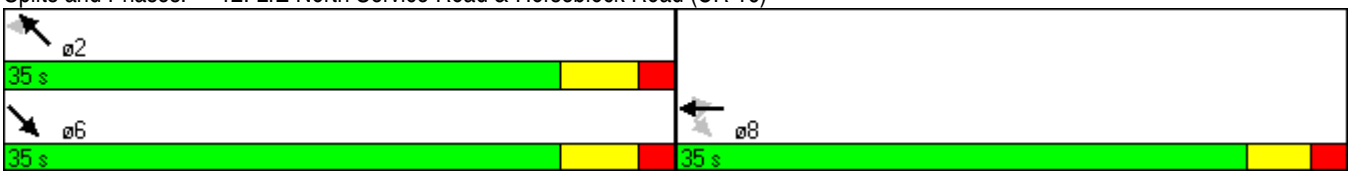
Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road



Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	276	91	456	354	363
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	20.0	20.0	20.0
Minimum Split (s)	21.3	21.3	26.0	26.0	26.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.7	17.7	44.3	44.3	44.3
Actuated g/C Ratio	0.25	0.25	0.63	0.63	0.63
v/c Ratio	0.58	0.23	0.25	0.84	0.35
Control Delay	25.0	5.5	6.2	29.8	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	5.5	6.2	29.8	8.5
LOS	C	A	A	C	A
Approach Delay	21.9		6.2		19.0
Approach LOS	C		A		B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 59.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

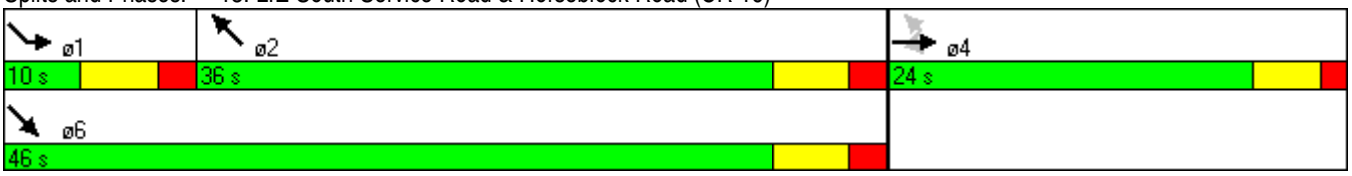


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	73	53	405	198	333	616
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.6	11.6	11.6	10.7	50.4	35.7
Actuated g/C Ratio	0.17	0.17	0.17	0.15	0.72	0.51
v/c Ratio	0.26	0.19	0.74	0.46	0.16	0.70
Control Delay	25.2	24.2	10.6	35.7	3.0	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	24.2	10.6	35.7	3.0	17.2
LOS	C	C	B	D	A	B
Approach Delay		14.0			15.2	17.2
Approach LOS		B			B	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 15.5 Intersection LOS: B
Intersection Capacity Utilization 59.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



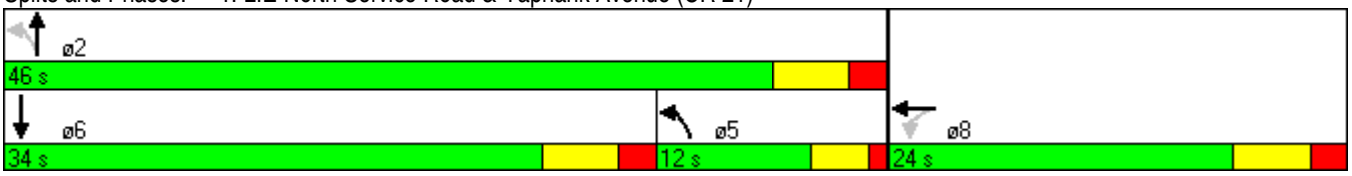
EXISTING MIDDAY PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	0	218	189	143
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	10.5	54.1	54.9	42.1
Actuated g/C Ratio	0.15	0.77	0.78	0.60
v/c Ratio	0.33	0.27	0.17	0.09
Control Delay	21.1	1.7	1.0	6.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.1	1.7	1.0	6.0
LOS	C	A	A	A
Approach Delay	21.1		1.4	6.0
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.33
Intersection Signal Delay: 6.0 Intersection LOS: A
Intersection Capacity Utilization 38.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

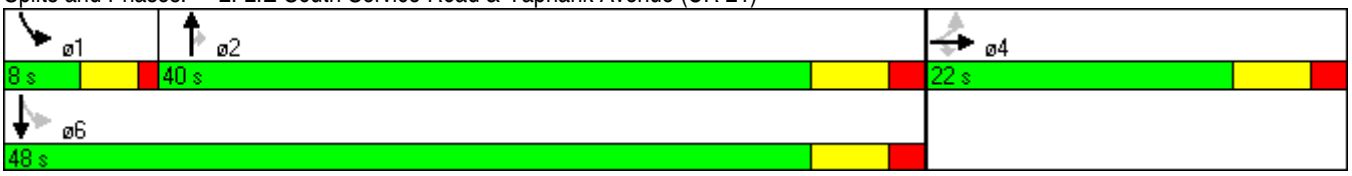


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	4	158	369	115	51	209
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.0	10.0	45.7	45.7	52.0	52.0
Actuated g/C Ratio	0.14	0.14	0.65	0.65	0.74	0.74
v/c Ratio	0.15	0.46	0.34	0.12	0.08	0.09
Control Delay	26.9	9.3	7.8	2.0	1.8	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	9.3	7.8	2.0	1.8	1.7
LOS	C	A	A	A	A	A
Approach Delay	12.6		6.4			1.7
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 6.4 Intersection LOS: A
Intersection Capacity Utilization 38.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	0	31	14	1	34	11	305	23	33	342	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.88	0.88	0.88	0.92	0.92	0.92
Hourly flow rate (vph)	32	0	36	16	1	40	12	347	26	36	372	17
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	856	841	186	666	832	347	389			373		
vC1, stage 1 conf vol	443	443		372	372							
vC2, stage 2 conf vol	412	398		294	461							
vCu, unblocked vol	856	841	186	666	832	347	389			373		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	100	96	97	100	94	99			97		
cM capacity (veh/h)	416	457	825	508	463	649	1166			1182		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	68	58	12	347	26	36	186	186	17
Volume Left	32	16	12	0	0	36	0	0	0
Volume Right	36	40	0	0	26	0	0	0	17
cSH	566	597	1166	1700	1700	1182	1700	1700	1700
Volume to Capacity	0.12	0.10	0.01	0.20	0.02	0.03	0.11	0.11	0.01
Queue Length 95th (ft)	10	8	1	0	0	2	0	0	0
Control Delay (s)	12.2	11.7	8.1	0.0	0.0	8.1	0.0	0.0	0.0
Lane LOS	B	B	A			A			
Approach Delay (s)	12.2	11.7	0.3			0.7			
Approach LOS	B	B							

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	9	38	339	9	33	235
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	11	45	361	10	37	264
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	699	361			370	
vC1, stage 1 conf vol	361					
vC2, stage 2 conf vol	338					
vCu, unblocked vol	699	361			370	
tC, single (s)	6.4	6.2			4.3	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.4	
p0 queue free %	98	93			97	
cM capacity (veh/h)	584	684			1096	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	55	361	10	37	264
Volume Left	11	0	0	37	0
Volume Right	45	0	10	0	0
cSH	662	1700	1700	1096	1700
Volume to Capacity	0.08	0.21	0.01	0.03	0.16
Queue Length 95th (ft)	7	0	0	3	0
Control Delay (s)	10.9	0.0	0.0	8.4	0.0
Lane LOS	B			A	
Approach Delay (s)	10.9	0.0		1.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	84	57	56	268	186	44
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	99	67	66	315	219	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	666	219	219			
vC1, stage 1 conf vol	219					
vC2, stage 2 conf vol	447					
vCu, unblocked vol	666	219	219			
tC, single (s)	6.5	6.3	4.3			
tC, 2 stage (s)	5.5					
tF (s)	3.6	3.4	2.3			
p0 queue free %	82	92	95			
cM capacity (veh/h)	545	792	1272			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	99	67	66	315	219	52
Volume Left	99	0	66	0	0	0
Volume Right	0	67	0	0	0	52
cSH	545	792	1272	1700	1700	1700
Volume to Capacity	0.18	0.08	0.05	0.19	0.13	0.03
Queue Length 95th (ft)	16	7	4	0	0	0
Control Delay (s)	13.1	10.0	8.0	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	11.8		1.4		0.0	
Approach LOS	B					

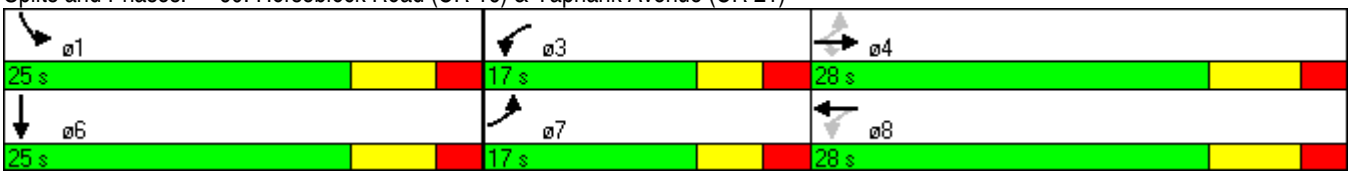
Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	60	361	26	58	693	146	71
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	25.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	44.0	38.4	38.4	43.8	38.3	15.7	15.7
Actuated g/C Ratio	0.63	0.55	0.55	0.63	0.55	0.22	0.22
v/c Ratio	0.14	0.23	0.03	0.10	0.39	0.47	0.21
Control Delay	7.2	11.3	5.9	5.7	12.3	27.4	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	11.3	5.9	5.7	12.3	27.4	22.0
LOS	A	B	A	A	B	C	C
Approach Delay		10.4			11.8		25.6
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 13.6 Intersection LOS: B
Intersection Capacity Utilization 40.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	447	695	0	0	64
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.91	0.91
Hourly flow rate (vph)	0	476	709	0	0	70
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	709				828	355
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	372				508	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	93
cM capacity (veh/h)	1032				431	945

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	119	119	119	119	355	355	70
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	70
cSH	1700	1700	1700	1700	1700	1700	945
Volume to Capacity	0.07	0.07	0.07	0.07	0.21	0.21	0.07
Queue Length 95th (ft)	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.1
Lane LOS							A
Approach Delay (s)	0.0				0.0		9.1
Approach LOS							A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	104	583	385	51	102	414
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	113	634	401	53	112	455
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	879	227			401	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	879	227			401	
tC, single (s)	7.0	7.1			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	54	16			90	
cM capacity (veh/h)	245	752			1119	

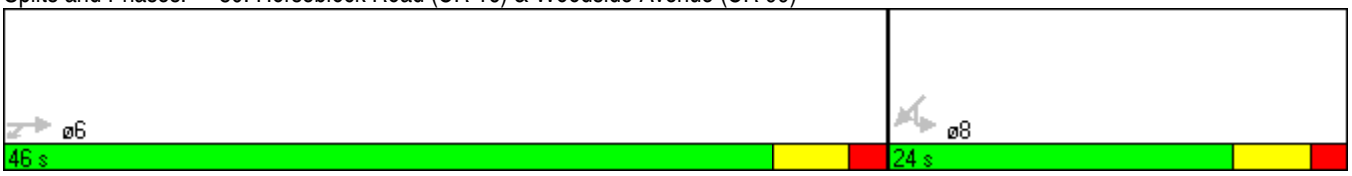
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	113	634	267	187	112	227	227
Volume Left	113	0	0	0	112	0	0
Volume Right	0	634	0	53	0	0	0
cSH	245	752	1700	1700	1119	1700	1700
Volume to Capacity	0.46	0.84	0.16	0.11	0.10	0.13	0.13
Queue Length 95th (ft)	57	243	0	0	8	0	0
Control Delay (s)	31.7	29.8	0.0	0.0	8.6	0.0	0.0
Lane LOS	D	D			A		
Approach Delay (s)	30.1		0.0		1.7		
Approach LOS	D						

Intersection Summary			
Average Delay	13.3		
Intersection Capacity Utilization	55.0%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	361	15	313
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	48.2	48.2	13.8
Actuated g/C Ratio	0.69	0.69	0.20
v/c Ratio	0.17	0.02	0.48
Control Delay	1.8	0.7	22.6
Queue Delay	0.0	0.0	0.0
Total Delay	1.8	0.7	22.6
LOS	A	A	C
Approach Delay	1.8		22.6
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 10.7	Intersection LOS: B
Intersection Capacity Utilization 25.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

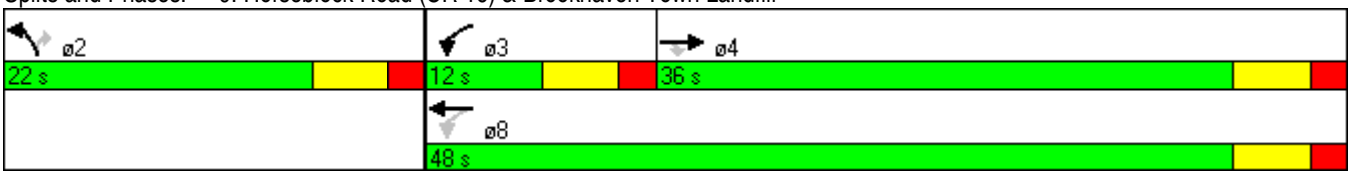


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	444	60	55	446	53	67
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	10.0	20.0	20.0	20.0
Total Split (s)	36.0	36.0	12.0	48.0	22.0	22.0
Total Split (%)	51.4%	51.4%	17.1%	68.6%	31.4%	31.4%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	36.8	36.8	44.0	44.0	18.0	18.0
Actuated g/C Ratio	0.53	0.53	0.63	0.63	0.26	0.26
v/c Ratio	0.26	0.08	0.11	0.42	0.14	0.17
Control Delay	10.3	4.4	3.9	10.3	21.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	4.4	3.9	10.3	21.1	6.6
LOS	B	A	A	B	C	A
Approach Delay	9.6			9.6	13.0	
Approach LOS	A			A	B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 10.0 Intersection LOS: A
Intersection Capacity Utilization 33.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Brookhaven Town Landfill

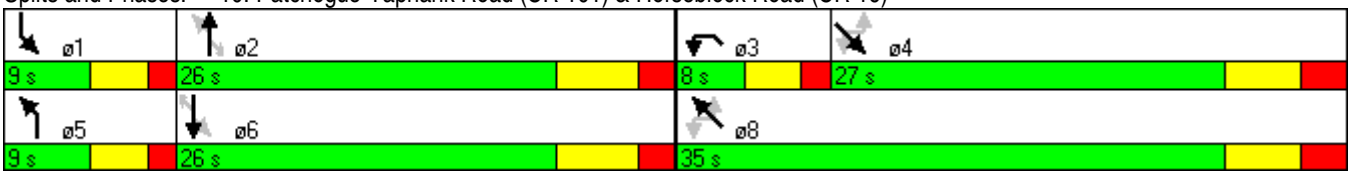


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	22	317	66	39	307	51	28	348	66	132	307	49
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.0	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	29.4	27.4	27.4	23.0	23.0	23.0	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.42	0.39	0.39	0.33	0.33	0.33	0.44	0.44	0.44
v/c Ratio	0.05	0.27	0.12	0.09	0.25	0.09	0.11	0.74	0.14	0.70	0.49	0.09
Control Delay	11.5	17.5	5.7	11.9	16.2	6.1	7.7	21.0	2.6	30.3	13.5	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	17.5	5.7	11.9	16.2	6.1	7.7	21.0	2.6	30.3	13.5	1.5
LOS	B	B	A	B	B	A	A	C	A	C	B	A
Approach Delay		15.2			14.5			17.4			16.8	
Approach LOS		B			B			B			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 16.1 Intersection LOS: B
Intersection Capacity Utilization 51.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

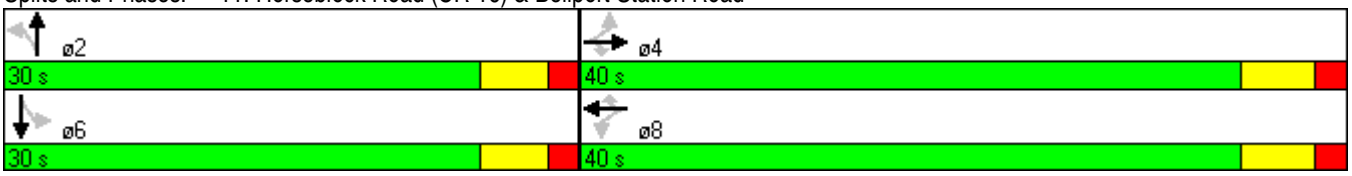


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	13	412	219	8	440	21	255	116	29	83
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		37.4	37.4		37.4	37.4		24.6		24.6
Actuated g/C Ratio		0.53	0.53		0.53	0.53		0.35		0.35
v/c Ratio		0.53	0.27		0.62	0.04		0.88		0.23
Control Delay		10.2	1.0		15.5	7.4		41.5		15.2
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		10.2	1.0		15.5	7.4		41.5		15.2
LOS		B	A		B	A		D		B
Approach Delay		7.1			15.1			41.5		15.2
Approach LOS		A			B			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 18.4 Intersection LOS: B
Intersection Capacity Utilization 66.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

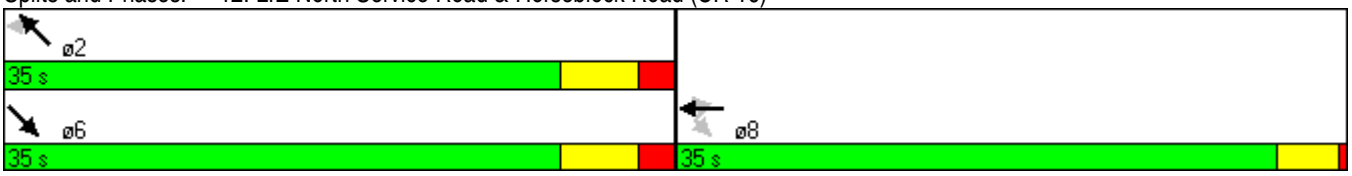


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	177	87	619	338	500
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	22.0	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	13.2	13.2	48.8	48.8	48.8
Actuated g/C Ratio	0.19	0.19	0.70	0.70	0.70
v/c Ratio	0.58	0.27	0.27	0.77	0.41
Control Delay	28.9	7.4	4.6	23.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	7.4	4.6	23.0	7.2
LOS	C	A	A	C	A
Approach Delay	24.6		4.6		13.6
Approach LOS	C		A		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 13.1 Intersection LOS: B
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

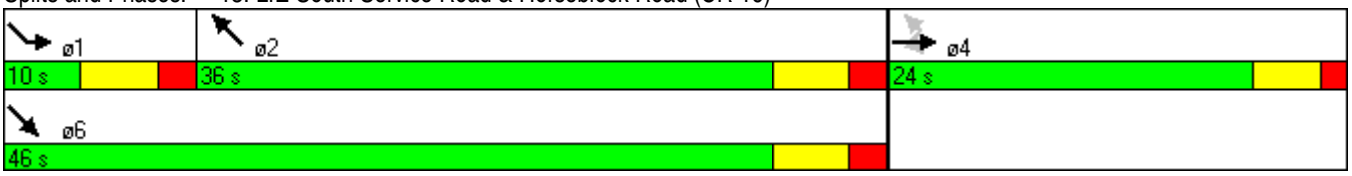


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	101	73	326	227	489	657
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.4	11.4	11.4	11.4	50.6	35.2
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.72	0.50
v/c Ratio	0.33	0.25	0.66	0.46	0.22	0.80
Control Delay	27.2	25.7	9.8	37.9	3.1	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	25.7	9.8	37.9	3.1	21.1
LOS	C	C	A	D	A	C
Approach Delay		15.6			14.1	21.1
Approach LOS		B			B	C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 17.1 Intersection LOS: B
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



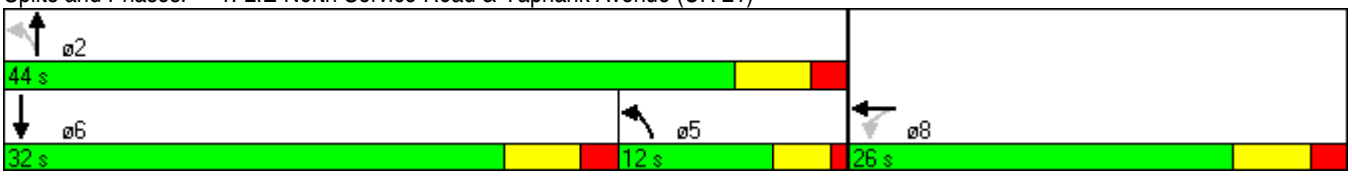
EXISTING PM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	5	244	222	164
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	11.6	50.4	50.4	38.4
Actuated g/C Ratio	0.17	0.72	0.72	0.55
v/c Ratio	0.44	0.32	0.21	0.10
Control Delay	20.3	2.6	1.7	7.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.3	2.6	1.7	7.1
LOS	C	A	A	A
Approach Delay	20.3		2.2	7.1
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 7.7 Intersection LOS: A
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

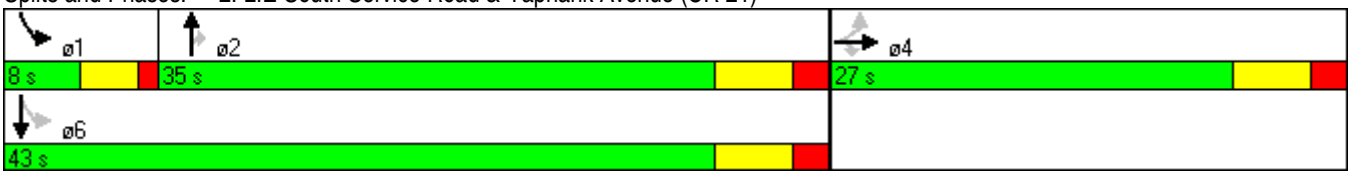


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	1	316	437	193	65	310
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.6	11.6	43.8	43.8	50.4	50.4
Actuated g/C Ratio	0.17	0.17	0.63	0.63	0.72	0.72
v/c Ratio	0.21	0.66	0.46	0.22	0.12	0.13
Control Delay	25.3	9.0	10.9	2.3	2.6	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	9.0	10.9	2.3	2.6	2.2
LOS	C	A	B	A	A	A
Approach Delay	11.3		8.3			2.3
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	0	20	16	0	34	10	521	13	9	671	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.59	0.59	0.59	0.43	0.43	0.43	0.91	0.91	0.91	0.97	0.97	0.97
Hourly flow rate (vph)	22	0	34	37	0	79	11	573	14	9	692	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1384	1319	346	993	1310	573	697			587		
vC1, stage 1 conf vol	710	710		595	595							
vC2, stage 2 conf vol	674	609		398	715							
vCu, unblocked vol	1384	1319	346	993	1310	573	697			587		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	100	95	90	100	83	99			99		
cM capacity (veh/h)	257	341	650	381	341	463	895			984		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	56	116	11	573	14	9	346	346	5
Volume Left	22	37	11	0	0	9	0	0	0
Volume Right	34	79	0	0	14	0	0	0	5
cSH	405	433	895	1700	1700	984	1700	1700	1700
Volume to Capacity	0.14	0.27	0.01	0.34	0.01	0.01	0.20	0.20	0.00
Queue Length 95th (ft)	12	27	1	0	0	1	0	0	0
Control Delay (s)	15.3	16.3	9.1	0.0	0.0	8.7	0.0	0.0	0.0
Lane LOS	C	C	A			A			
Approach Delay (s)	15.3	16.3	0.2			0.1			
Approach LOS	C	C							

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	8	25	460	10	73	420
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	5	30	500	11	78	447
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1102	500			511	
vC1, stage 1 conf vol	500					
vC2, stage 2 conf vol	602					
vCu, unblocked vol	1102	500			511	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	95			93	
cM capacity (veh/h)	427	571			1054	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	35	500	11	78	447
Volume Left	5	0	0	78	0
Volume Right	30	0	11	0	0
cSH	545	1700	1700	1054	1700
Volume to Capacity	0.06	0.29	0.01	0.07	0.26
Queue Length 95th (ft)	5	0	0	6	0
Control Delay (s)	12.1	0.0	0.0	8.7	0.0
Lane LOS	B			A	
Approach Delay (s)	12.1	0.0		1.3	
Approach LOS	B				

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	127	60	37	343	411	17
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	149	71	42	390	457	19
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	931	457	457			
vC1, stage 1 conf vol	457					
vC2, stage 2 conf vol	474					
vCu, unblocked vol	931	457	457			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.3			
p0 queue free %	70	88	96			
cM capacity (veh/h)	492	600	1068			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	149	71	42	390	457	19
Volume Left	149	0	42	0	0	0
Volume Right	0	71	0	0	0	19
cSH	492	600	1068	1700	1700	1700
Volume to Capacity	0.30	0.12	0.04	0.23	0.27	0.01
Queue Length 95th (ft)	32	10	3	0	0	0
Control Delay (s)	15.5	11.8	8.5	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	14.3		0.8		0.0	
Approach LOS	B					

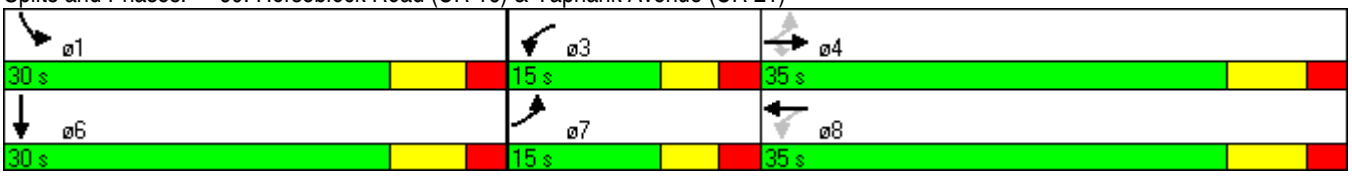
Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	61	753	32	21	365	353	223
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	15.0	35.0	35.0	15.0	35.0	30.0	30.0
Total Split (%)	18.8%	43.8%	43.8%	18.8%	43.8%	37.5%	37.5%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	46.8	42.7	42.7	43.6	37.0	24.2	24.2
Actuated g/C Ratio	0.58	0.53	0.53	0.54	0.46	0.30	0.30
v/c Ratio	0.13	0.48	0.04	0.06	0.24	0.78	0.46
Control Delay	6.8	12.3	2.7	8.0	15.1	37.5	25.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	12.3	2.7	8.0	15.1	37.5	25.1
LOS	A	B	A	A	B	D	C
Approach Delay		11.5			14.7		32.7
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 37 (46%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 53.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	846	366	0	0	53
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	940	407	0	0	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.94				0.94	0.94
vC, conflicting volume	407				642	203
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	227				478	9
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	94
cM capacity (veh/h)	1252				483	1001

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	235	235	235	235	203	203	59
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	59
cSH	1700	1700	1700	1700	1700	1700	1001
Volume to Capacity	0.14	0.14	0.14	0.14	0.12	0.12	0.06
Queue Length 95th (ft)	0	0	0	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	8.8
Lane LOS							A
Approach Delay (s)	0.0				0.0		8.8
Approach LOS							A

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	20.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	49	246	154	404	206	851
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.86	0.86	0.90	0.90
Hourly flow rate (vph)	52	259	179	470	229	946
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1345	324			179	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1345	324			179	
tC, single (s)	6.9	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	56	61			84	
cM capacity (veh/h)	116	663			1394	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	52	259	119	529	229	473	473
Volume Left	52	0	0	0	229	0	0
Volume Right	0	259	0	470	0	0	0
cSH	116	663	1700	1700	1394	1700	1700
Volume to Capacity	0.44	0.39	0.07	0.31	0.16	0.28	0.28
Queue Length 95th (ft)	48	46	0	0	15	0	0
Control Delay (s)	58.6	13.9	0.0	0.0	8.1	0.0	0.0
Lane LOS	F	B			A		
Approach Delay (s)	21.3		0.0		1.6		
Approach LOS	C						

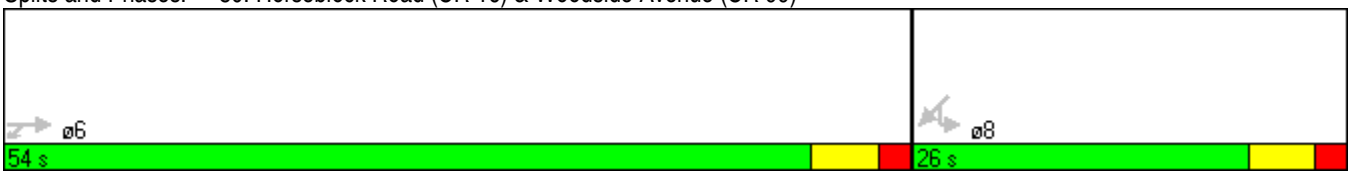
Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	527	10	124
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	61.3	61.3	10.7
Actuated g/C Ratio	0.77	0.77	0.13
v/c Ratio	0.22	0.01	0.31
Control Delay	0.7	0.0	23.5
Queue Delay	0.0	0.0	0.0
Total Delay	0.7	0.0	23.5
LOS	A	A	C
Approach Delay	0.7		23.5
Approach LOS	A		C

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.31
Intersection Signal Delay: 5.0 Intersection LOS: A
Intersection Capacity Utilization 24.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

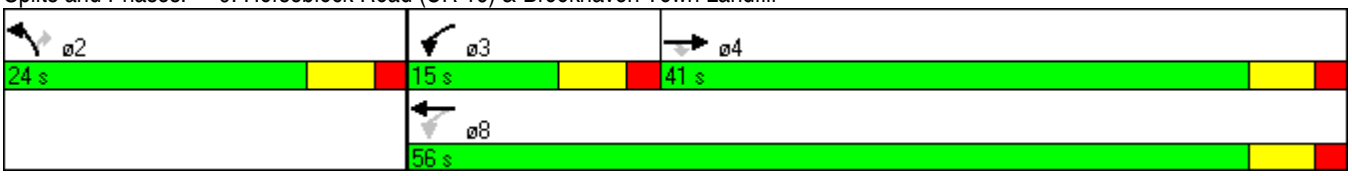


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	736	2	2	418	15	18
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	10.0	22.0	22.0	22.0
Total Split (s)	41.0	41.0	15.0	56.0	24.0	24.0
Total Split (%)	51.3%	51.3%	18.8%	70.0%	30.0%	30.0%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	49.7	49.7	52.0	52.0	20.0	20.0
Actuated g/C Ratio	0.62	0.62	0.65	0.65	0.25	0.25
v/c Ratio	0.39	0.00	0.01	0.37	0.04	0.05
Control Delay	13.3	10.5	1.0	7.1	23.2	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	10.5	1.0	7.1	23.2	10.5
LOS	B	B	A	A	C	B
Approach Delay	13.3			7.1	16.4	
Approach LOS	B			A	B	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 6 (8%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 11.3 Intersection LOS: B
Intersection Capacity Utilization 32.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Brookhaven Town Landfill

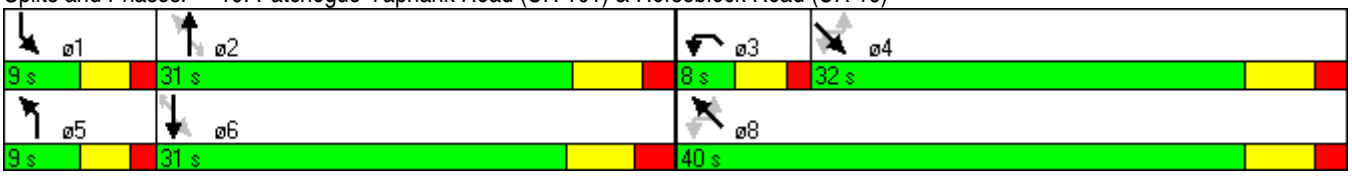


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	29	554	41	59	427	53	14	448	70	140	358	121
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	31.0	31.0	9.0	31.0	31.0	32.0	32.0	32.0	8.0	40.0	40.0
Total Split (%)	11.3%	38.8%	38.8%	11.3%	38.8%	38.8%	40.0%	40.0%	40.0%	10.0%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.0	4.0	4.2	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	1.5	2.0	2.0	1.5	2.5	2.5	2.0	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.5	-2.5	-2.2	-2.2	-2.2	-0.5	-2.2	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	32.8	28.8	28.8	33.6	30.6	30.6	28.0	28.0	28.0	36.0	36.0	36.0
Actuated g/C Ratio	0.41	0.36	0.36	0.42	0.38	0.38	0.35	0.35	0.35	0.45	0.45	0.45
v/c Ratio	0.09	0.53	0.09	0.23	0.38	0.10	0.06	0.86	0.14	0.97	0.53	0.19
Control Delay	13.2	22.9	6.4	14.7	19.8	5.9	12.3	35.7	6.2	92.1	26.4	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	22.9	6.4	14.7	19.8	5.9	12.3	35.7	6.2	92.1	26.4	8.9
LOS	B	C	A	B	B	A	B	D	A	F	C	A
Approach Delay		21.3			17.9			31.2			37.9	
Approach LOS		C			B			C			D	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 27.3 Intersection LOS: C
Intersection Capacity Utilization 63.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

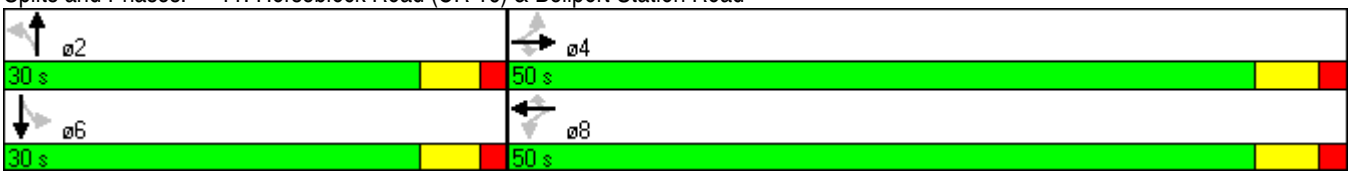


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	39	500	283	5	353	88	181	149	26	118
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		47.9	47.9		47.9	47.9		24.1		24.1
Actuated g/C Ratio		0.60	0.60		0.60	0.60		0.30		0.30
v/c Ratio		0.55	0.29		0.40	0.12		0.86		0.33
Control Delay		12.7	2.3		14.7	7.9		47.1		21.9
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		12.7	2.3		14.7	7.9		47.1		21.9
LOS		B	A		B	A		D		C
Approach Delay		9.1			13.4			47.1		21.9
Approach LOS		A			B			D		C

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 46 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 18.7 Intersection LOS: B
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

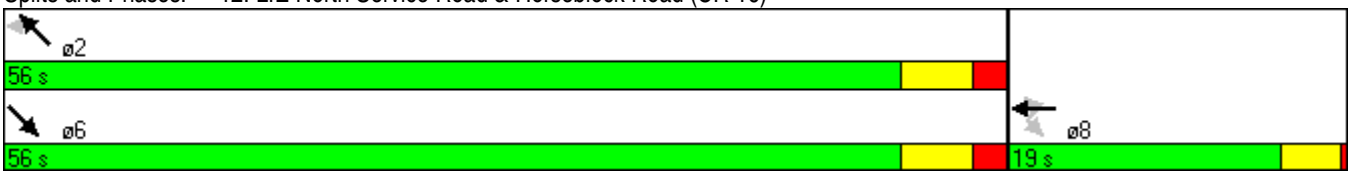


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	205	99	770	375	555
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	9.8	9.8	22.0	22.0	22.0
Total Split (s)	19.0	19.0	56.0	56.0	56.0
Total Split (%)	25.3%	25.3%	74.7%	74.7%	74.7%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	13.6	13.6	53.4	53.4	53.4
Actuated g/C Ratio	0.18	0.18	0.71	0.71	0.71
v/c Ratio	0.71	0.30	0.31	1.01	0.46
Control Delay	34.9	8.2	4.4	53.6	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	8.2	4.4	53.6	2.1
LOS	C	A	A	D	A
Approach Delay	29.9		4.4		22.9
Approach LOS	C		A		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 67.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

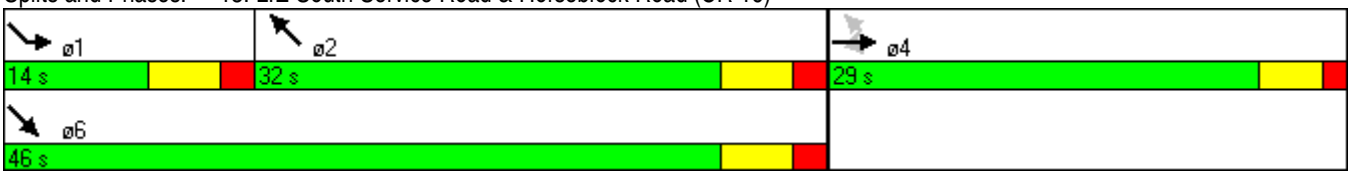


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	202	112	430	346	647	675
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.6	21.6	21.6	11.4	45.4	29.9
Actuated g/C Ratio	0.29	0.29	0.29	0.15	0.61	0.40
v/c Ratio	0.41	0.24	0.87	0.73	0.34	0.93
Control Delay	22.8	20.2	31.3	45.3	6.3	44.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	20.2	31.3	45.3	6.3	44.0
LOS	C	C	C	D	A	D
Approach Delay		27.3			19.8	44.0
Approach LOS		C			B	D

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 28.8 Intersection LOS: C
Intersection Capacity Utilization 67.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



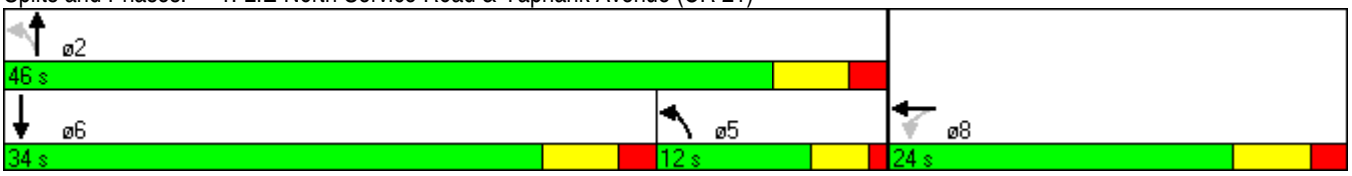
EXISTING SATURDAY PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	4	126	147	107
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	9.9	55.5	55.5	45.9
Actuated g/C Ratio	0.14	0.79	0.79	0.66
v/c Ratio	0.26	0.15	0.13	0.07
Control Delay	20.7	0.9	0.7	5.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.7	0.9	0.7	5.1
LOS	C	A	A	A
Approach Delay	20.7		0.8	5.1
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.26
Intersection Signal Delay: 6.0 Intersection LOS: A
Intersection Capacity Utilization 32.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

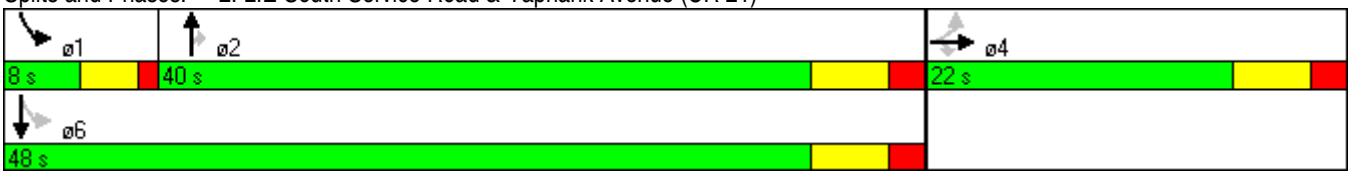


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	6	136	227	85	43	132
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.3	10.3	45.4	45.4	51.7	51.7
Actuated g/C Ratio	0.15	0.15	0.65	0.65	0.74	0.74
v/c Ratio	0.22	0.44	0.23	0.10	0.06	0.06
Control Delay	27.7	9.1	7.1	2.1	1.8	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	9.1	7.1	2.1	1.8	1.7
LOS	C	A	A	A	A	A
Approach Delay	14.0		5.7			1.7
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 7.0 Intersection LOS: A
Intersection Capacity Utilization 32.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	0	5	0	0	2	4	288	0	0	246	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87	0.96	0.96	0.96
Hourly flow rate (vph)	6	0	6	0	0	2	5	331	0	0	256	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	599	596	128	474	600	331	259			331		
vC1, stage 1 conf vol	256	256		340	340							
vC2, stage 2 conf vol	343	340		134	259							
vCu, unblocked vol	599	596	128	474	600	331	259			331		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	99	100	100	100	100			100		
cM capacity (veh/h)	564	564	898	608	562	665	1302			1225		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	12	2	5	331	0	0	128	128	3
Volume Left	6	0	5	0	0	0	0	0	0
Volume Right	6	2	0	0	0	0	0	0	3
cSH	693	665	1302	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.02	0.00	0.00	0.19	0.00	0.00	0.08	0.08	0.00
Queue Length 95th (ft)	1	0	0	0	0	0	0	0	0
Control Delay (s)	10.3	10.4	7.8	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B	A						
Approach Delay (s)	10.3	10.4	0.1			0.0			
Approach LOS	B	B							

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	10	55	217	21	62	201
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.91	0.91
Hourly flow rate (vph)	12	65	255	25	68	221
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	612	255			280	
vC1, stage 1 conf vol	255					
vC2, stage 2 conf vol	357					
vCu, unblocked vol	612	255			280	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	92			95	
cM capacity (veh/h)	605	783			1283	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	76	255	25	68	221
Volume Left	12	0	0	68	0
Volume Right	65	0	25	0	0
cSH	749	1700	1700	1283	1700
Volume to Capacity	0.10	0.15	0.01	0.05	0.13
Queue Length 95th (ft)	8	0	0	4	0
Control Delay (s)	10.3	0.0	0.0	8.0	0.0
Lane LOS	B			A	
Approach Delay (s)	10.3	0.0		1.9	
Approach LOS	B				

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	52	47	26	192	177	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	61	55	31	226	208	28
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	495	208	208			
vC1, stage 1 conf vol	208					
vC2, stage 2 conf vol	287					
vCu, unblocked vol	495	208	208			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	93	98			
cM capacity (veh/h)	676	832	1363			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	61	55	31	226	208	28
Volume Left	61	0	31	0	0	0
Volume Right	0	55	0	0	0	28
cSH	676	832	1363	1700	1700	1700
Volume to Capacity	0.09	0.07	0.02	0.13	0.12	0.02
Queue Length 95th (ft)	7	5	2	0	0	0
Control Delay (s)	10.9	9.6	7.7	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	10.3		0.9		0.0	
Approach LOS	B					

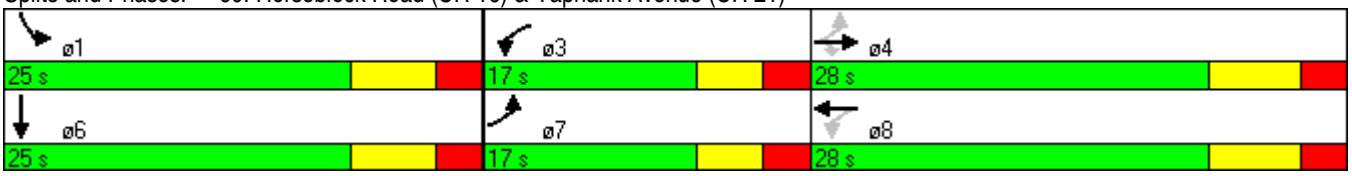
Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	45	537	35	30	440	121	55
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	25.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	49.5	46.7	46.7	48.3	44.0	13.8	14.1
Actuated g/C Ratio	0.71	0.67	0.67	0.69	0.63	0.20	0.20
v/c Ratio	0.08	0.27	0.04	0.06	0.22	0.40	0.16
Control Delay	5.2	8.6	4.5	4.7	9.2	27.3	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	8.6	4.5	4.7	9.2	27.3	23.0
LOS	A	A	A	A	A	C	C
Approach Delay		8.1			8.9		26.0
Approach LOS		A			A		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.40
Intersection Signal Delay: 10.8 Intersection LOS: B
Intersection Capacity Utilization 36.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	617	443	0	0	37
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.93	0.93
Hourly flow rate (vph)	0	717	492	0	0	40
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.93				0.93	0.93
vC, conflicting volume	492				672	246
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	310				503	46
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	96
cM capacity (veh/h)	1163				464	944

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	179	179	179	179	246	246	40
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	40
cSH	1700	1700	1700	1700	1700	1700	944
Volume to Capacity	0.11	0.11	0.11	0.11	0.14	0.14	0.04
Queue Length 95th (ft)	0	0	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.0
Lane LOS							A
Approach Delay (s)	0.0				0.0		9.0
Approach LOS							A

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	41	277	359	127	170	451
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	48	326	413	146	187	496
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1107	279			413	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1107	279			413	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	72	55			84	
cM capacity (veh/h)	171	718			1143	

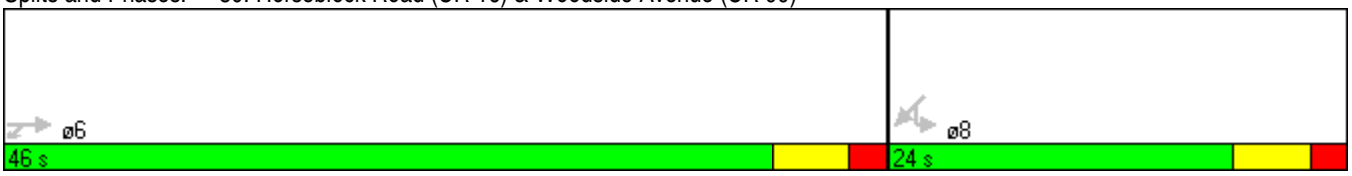
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	48	326	275	284	187	248	248
Volume Left	48	0	0	0	187	0	0
Volume Right	0	326	0	146	0	0	0
cSH	171	718	1700	1700	1143	1700	1700
Volume to Capacity	0.28	0.45	0.16	0.17	0.16	0.15	0.15
Queue Length 95th (ft)	28	59	0	0	15	0	0
Control Delay (s)	34.1	14.1	0.0	0.0	8.8	0.0	0.0
Lane LOS	D	B			A		
Approach Delay (s)	16.7		0.0		2.4		
Approach LOS	C						

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	37.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	399	13	136
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	51.8	51.8	10.2
Actuated g/C Ratio	0.74	0.74	0.15
v/c Ratio	0.17	0.01	0.29
Control Delay	1.1	0.4	25.6
Queue Delay	0.0	0.0	0.0
Total Delay	1.1	0.4	25.6
LOS	A	A	C
Approach Delay	1.1		25.6
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 21.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

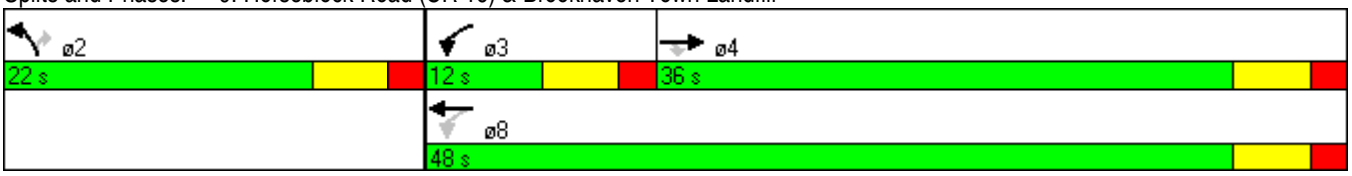


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	388	120	84	450	106	119
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	10.0	20.0	20.0	20.0
Total Split (s)	36.0	36.0	12.0	48.0	22.0	22.0
Total Split (%)	51.4%	51.4%	17.1%	68.6%	31.4%	31.4%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max
Act Effct Green (s)	34.4	34.4	44.0	44.0	18.0	18.0
Actuated g/C Ratio	0.49	0.49	0.63	0.63	0.26	0.26
v/c Ratio	0.23	0.15	0.15	0.41	0.26	0.26
Control Delay	11.5	4.3	6.3	11.6	22.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	4.3	6.3	11.6	22.6	5.9
LOS	B	A	A	B	C	A
Approach Delay	9.8			10.8	13.7	
Approach LOS	A			B	B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.41
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 36.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Brookhaven Town Landfill

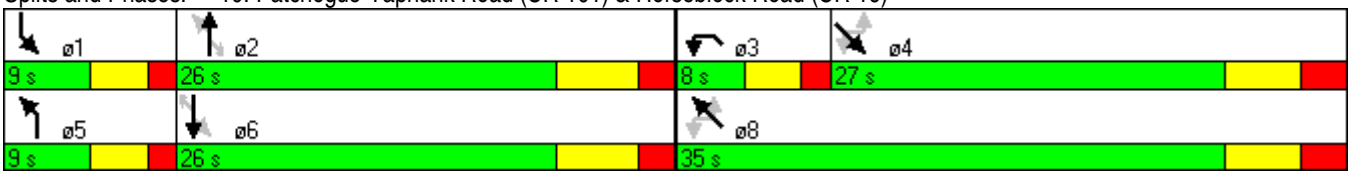


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	31	337	47	44	342	40	53	395	24	71	403	45
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	29.4	27.4	27.4	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.42	0.39	0.39	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.08	0.29	0.09	0.11	0.28	0.07	0.20	0.72	0.05	0.34	0.50	0.06
Control Delay	11.7	17.6	6.0	12.0	16.3	6.3	9.8	20.1	2.2	11.9	14.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	17.6	6.0	12.0	16.3	6.3	9.8	20.1	2.2	11.9	14.1	2.3
LOS	B	B	A	B	B	A	A	C	A	B	B	A
Approach Delay		15.9			14.9			18.0			12.8	
Approach LOS		B			B			B			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 15.4 Intersection LOS: B
Intersection Capacity Utilization 55.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

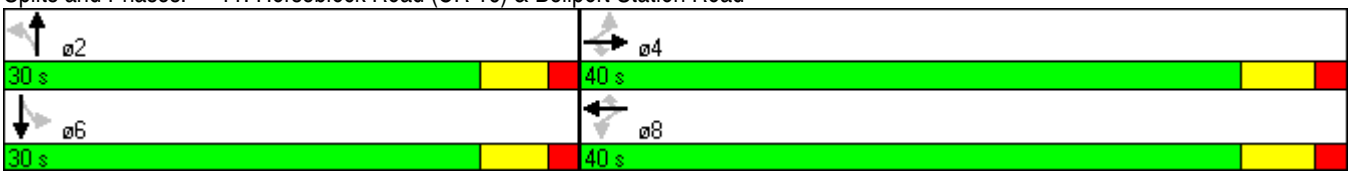


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	20	428	290	4	453	38	227	124	23	82
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		39.2	39.2		39.2	39.2		22.8		22.8
Actuated g/C Ratio		0.56	0.56		0.56	0.56		0.33		0.33
v/c Ratio		0.50	0.32		0.49	0.05		0.81		0.26
Control Delay		12.4	2.1		12.2	7.3		35.2		14.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		12.4	2.1		12.2	7.3		35.2		14.4
LOS		B	A		B	A		D		B
Approach Delay		8.4			11.8			35.2		14.4
Approach LOS		A			B			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 15.3 Intersection LOS: B
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

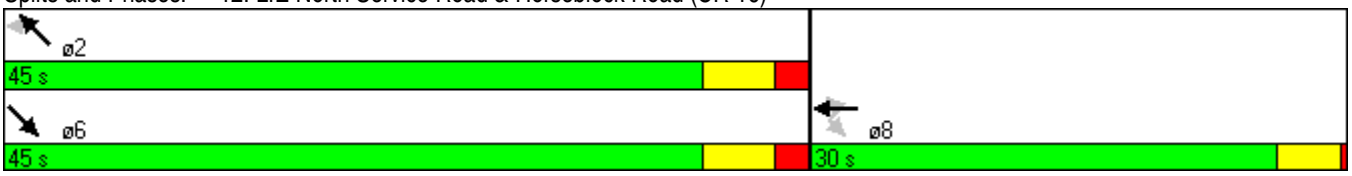


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	248	198	649	344	570
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	22.0	22.0
Total Split (s)	30.0	30.0	45.0	45.0	45.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	13.1	13.1	53.9	53.9	53.9
Actuated g/C Ratio	0.17	0.17	0.72	0.72	0.72
v/c Ratio	0.56	0.49	0.26	0.74	0.45
Control Delay	31.1	7.9	4.2	16.1	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	7.9	4.2	16.1	2.8
LOS	C	A	A	B	A
Approach Delay	22.4		4.2		7.8
Approach LOS	C		A		A

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 10.4 Intersection LOS: B
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

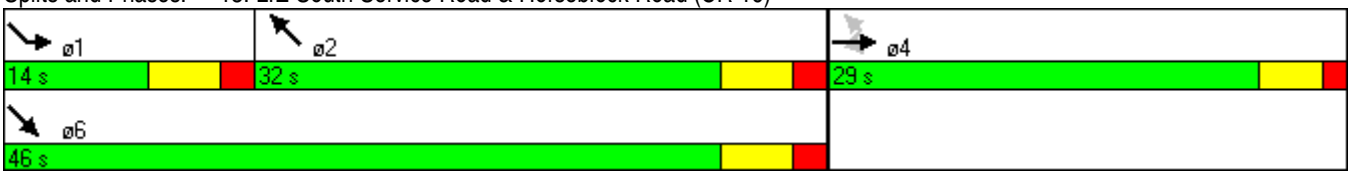


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	98	68	310	210	483	792
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.7	11.7	11.7	12.6	55.3	38.7
Actuated g/C Ratio	0.16	0.16	0.16	0.17	0.74	0.52
v/c Ratio	0.33	0.24	0.67	0.43	0.22	0.88
Control Delay	29.3	27.6	11.9	34.8	3.3	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	27.6	11.9	34.8	3.3	31.9
LOS	C	C	B	C	A	C
Approach Delay		17.7			12.9	31.9
Approach LOS		B			B	C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 64.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



APPENDIX E: ACCIDENT SUMMARY TABLES

Yaphank Avenue at LIE North Service Road **Total Accidents: 0**

Day of Week	Number	%
Sunday	0	---
Monday	0	---
Tuesday	0	---
Wednesday	0	---
Thursday	0	---
Friday	0	---
Saturday	0	---
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	0	---
10 am - 4 pm	0	---
4 pm - 7 pm	0	---
7 pm - 12 Mid	0	---
12 Mid - 6 am	0	---
Unspecified	0	---
Weather	Number	%
Clear	0	---
Cloudy	0	---
Fog	0	---
Rain	0	---
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	0	---
Icy	0	---
Wet	0	---
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	0	---
Northbound	0	---
Southbound	0	---
Unknown	0	---
Accident Type	Number	%
Overtaking	0	---
Rear End	0	---
Right Angle	0	---
Left Turn	0	---
Pedestrian	0	---
Fixed Object	0	---
Head-On	0	---
Other Type	0	---
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	0	---
Property-Damage Only	0	---
Light Conditions	Number	%
Day	0	---
Night	0	---
Dawn / Dusk	0	---
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	0	---
Spring (Mar-May)	0	---
Summer (June-Aug)	0	---
Fall (Sep-Nov)	0	---

Accident Rate Calculations

ıank Avenue (CR 21):	8,049	vehicles per day (AADT Source: NYSDOT counts dated 2007)
E North Service Road:	2,200	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	10,249	Vehicles per Day (combined entering vehicles)
3.74	Million Vehicles per Year	
11.22	Million entering vehicles during 3-Year Study Period	
0	Total number of collisions during Study Period	
0.00	Accident Rate in collisions per Million entering vehicles (MEV)	
0.11	NYSDOT Mean collision Rate (Urban 3-leg signalized intersection)	

Specific Collision Types

Yaphank Avenue at LIE South Service Road **Total Accidents: 2**

Day of Week	Number	%
Sunday	1	50.0%
Monday	0	---
Tuesday	0	---
Wednesday	1	50.0%
Thursday	0	---
Friday	0	---
Saturday	0	---
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	0	---
10 am - 4 pm	1	50.0%
4 pm - 7 pm	1	50.0%
7 pm - 12 Mid	0	---
12 Mid - 6 am	0	---
Unspecified	0	---
Weather	Number	%
Clear	1	50.0%
Cloudy	1	50.0%
Fog	0	---
Rain	0	---
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	1	50.0%
Icy	0	---
Wet	1	50.0%
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	0	---
Northbound	0	---
Southbound	0	---
Unknown	2	100.0%
Accident Type	Number	%
Overtaking	0	---
Rear End	1	50.0%
Right Angle	0	---
Left Turn	0	---
Pedestrian	0	---
Fixed Object	0	---
Head-On	0	---
Other Type	1	50.0%
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	2	100.0%
Property-Damage Only	0	---
Light Conditions	Number	%
Day	2	100.0%
Night	0	---
Dawn / Dusk	0	---
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	0	---
Spring (Mar-May)	1	50.0%
Summer (June-Aug)	1	50.0%
Fall (Sep-Nov)	0	---

Accident Rate Calculations

ıank Avenue (CR 21):	8,117	vehicles per day (AADT Source: NYSDOT counts dated 2007)
E South Service Road:	3,700	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	11,817	Vehicles per Day (combined entering vehicles)
4.31	Million Vehicles per Year	
12.94	Million entering vehicles during 3-Year Study Period	
2	Total number of collisions during Study Period	
0.15	Accident Rate in collisions per Million entering vehicles (MEV)	
0.11	NYSDOT Mean collision Rate (Urban 3-leg signalized intersection)	

Specific Collision Types

Rear End

1	Total number of Rear End accidents during accident study
0.08	Accident Rate in Accidents per Million entering vehicles
0.04	NYSDOT Mean Accident Rate

Yaphank Avenue at SCDPW Driveway **Total Accidents: 0**

Day of Week	Number	%
Sunday	0	---
Monday	0	---
Tuesday	0	---
Wednesday	0	---
Thursday	0	---
Friday	0	---
Saturday	0	---
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	0	---
10 am - 4 pm	0	---
4 pm - 7 pm	0	---
7 pm - 12 Mid	0	---
12 Mid - 6 am	0	---
Unspecified	0	---
Weather	Number	%
Clear	0	---
Cloudy	0	---
Fog	0	---
Rain	0	---
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	0	---
Icy	0	---
Wet	0	---
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	0	---
Northbound	0	---
Southbound	0	---
Unknown	0	---
Accident Type	Number	%
Overtaking	0	---
Rear End	0	---
Right Angle	0	---
Left Turn	0	---
Pedestrian	0	---
Fixed Object	0	---
Head-On	0	---
Other Type	0	---
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	0	---
Property-Damage Only	0	---
Light Conditions	Number	%
Day	0	---
Night	0	---
Dawn / Dusk	0	---
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	0	---
Spring (Mar-May)	0	---
Summer (June-Aug)	0	---
Fall (Sep-Nov)	0	---

Accident Rate Calculations

ıank Avenue (CR 21):	8,184	vehicles per day (AADT Source: NYSDOT counts dated 2007)
SCDPW Driveway:	1,100	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	9,284	Vehicles per Day (combined entering vehicles)
3.39	Million Vehicles per Year	
10.17	Million entering vehicles during 3-Year Study Period	
0	Total number of collisions during Study Period	
0.00	Accident Rate in collisions per Million entering vehicles (MEV)	
0.10	NYSDOT Mean collision Rate (Urban 4-leg unsignalized intersection)	

Specific Collision Types

Overtaking	**0**	Total number of Overtaking accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
	0.13	NYSDOT Mean Accident Rate
Overtaking	**0**	Total number of Overtaking accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
	0.08	NYSDOT Mean Accident Rate
Overtaking	**0**	Total number of Overtaking accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
	0.08	NYSDOT Mean Accident Rate
Overtaking	**0**	Total number of Overtaking accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
	0.08	NYSDOT Mean Accident Rate

Yaphank Avenue (CR 21) at Gerard Road **Total Accidents: 2**

Day of Week	Number	%
Sunday	0	---
Monday	0	---
Tuesday	0	---
Wednesday	0	---
Thursday	0	---
Friday	1	50.0%
Saturday	1	50.0%
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	0	---
10 am - 4 pm	1	50.0%
4 pm - 7 pm	0	---
7 pm - 12 Mid	0	---
12 Mid - 6 am	1	50.0%
Unspecified	0	---
Weather	Number	%
Clear	1	50.0%
Cloudy	0	---
Fog	0	---
Rain	1	50.0%
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	1	50.0%
Icy	0	---
Wet	1	50.0%
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	1	50.0%
Northbound	0	---
Southbound	1	50.0%
Unknown	0	---
Accident Type	Number	%
Overtaking	0	---
Rear End	0	---
Right Angle	1	50.0%
Left Turn	0	---
Pedestrian	0	---
Fixed Object	1	50.0%
Head-On	0	---
Other Type	0	---
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	1	50.0%
Property-Damage Only	1	50.0%
Light Conditions	Number	%
Day	1	50.0%
Night	1	50.0%
Dawn / Dusk	0	---
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	1	50.0%
Spring (Mar-May)	1	50.0%
Summer (June-Aug)	0	---
Fall (Sep-Nov)	0	---

Accident Rate Calculations

ıank Avenue (CR 21):	8,184	vehicles per day (AADT Source: NYSDOT counts dated 2007)
Gerard Road:	1,000	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	9,184	Vehicles per Day (combined entering vehicles)
	3.35	Million Vehicles per Year
	10.06	Million entering vehicles during 3-Year Study Period
	2	Total number of collisions during Study Period
	0.20	Accident Rate in collisions per Million entering vehicles (MEV)
	0.04	NYSDOT Mean collision Rate (Urban 3-leg unsignalized intersection)

Specific Collision Types

Right Angle	**1**	Total number of Right Angle accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate
Fixed Object	**1**	Total number of Fixed Object accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate

Yaphank Avenue (CR 21) at Glover Drive **Total Accidents: 1**

Day of Week	Number	%
Sunday		---
Monday		---
Tuesday	1	100.0%
Wednesday		---
Thursday		---
Friday		---
Saturday		---
Unknown		---
Time of Day	Number	%
6 am - 10 am		---
10 am - 4 pm	1	100.0%
4 pm - 7 pm		---
7 pm - 12 Mid		---
12 Mid - 6 am		---
Unspecified		---
Weather	Number	%
Clear	1	100.0%
Cloudy		---
Fog		---
Rain		---
Sleet / Snow		---
Unknown		---
Pavement	Number	%
Dry	1	100.0%
Icy		---
Wet		---
Unknown		---

Approach Direction	Number	%
Eastbound		---
Westbound		---
Northbound		---
Southbound	1	100.0%
Unknown		---
Accident Type	Number	%
Overtaking		---
Rear End		---
Right Angle	1	100.0%
Left Turn		---
Pedestrian		---
Fixed Object		---
Head-On		---
Other Type		---
Severity	Number	%
Fatal Injury		---
Non-Fatal Injury	1	100.0%
Property-Damage Only		---
Light Conditions	Number	%
Day	1	100.0%
Night		---
Dawn / Dusk		---
Unknown		---
Time of Year	Number	%
Winter (Dec-Feb)	1	100.0%
Spring (Mar-May)		---
Summer (June-Aug)		---
Fall (Sep-Nov)		---

Accident Rate Calculations

ıank Avenue (CR 21):	8,184	vehicles per day (AADT Source: NYSDOT counts dated 2007)
Glover Drive:	1,900	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	10,084	Vehicles per Day (combined entering vehicles)
3.68	Million Vehicles per Year	
11.04	Million entering vehicles during 3-Year Study Period	
1	Total number of collisions during Study Period	
0.09	Accident Rate in collisions per Million entering vehicles (MEV)	
0.04	NYSDOT Mean collision Rate (Urban 3-leg unsignalized intersection)	

Specific Collision Types

Right Angle	**1**	Total number of Right Angle accidents during accident study
	0.09	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate

Yaphank Avenue at Horseblock Road (CR 16) **Total Accidents: 9**

Day of Week	Number	%
Sunday	0	---
Monday	1	11.1%
Tuesday	0	---
Wednesday	3	33.3%
Thursday	4	44.4%
Friday	1	11.1%
Saturday	0	---
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	2	22.2%
10 am - 4 pm	2	22.2%
4 pm - 7 pm	3	33.3%
7 pm - 12 Mid	1	11.1%
12 Mid - 6 am	1	11.1%
Unspecified	0	---
Weather	Number	%
Clear	4	44.4%
Cloudy	4	44.4%
Fog	0	---
Rain	1	11.1%
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	7	77.8%
Icy	0	---
Wet	2	22.2%
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	2	22.2%
Northbound	2	22.2%
Southbound	4	44.4%
Unknown	1	11.1%
Accident Type	Number	%
Overtaking	1	11.1%
Rear End	1	11.1%
Right Angle	0	---
Left Turn	5	55.6%
Pedestrian	1	11.1%
Fixed Object	1	11.1%
Head-On	0	---
Other Type	0	---
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	7	77.8%
Property-Damage Only	2	22.2%
Light Conditions	Number	%
Day	4	44.4%
Night	4	44.4%
Dawn / Dusk	1	11.1%
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	5	55.6%
Spring (Mar-May)	1	11.1%
Summer (June-Aug)	1	11.1%
Fall (Sep-Nov)	2	22.2%

Accident Rate Calculations

ıank Avenue (CR 21):	8,184	vehicles per day (AADT Source: NYSDOT counts dated 2007)
eblock Road (CR 16):	14,358	vehicles per day (AADT Source: NYSDOT counts dated 2007)
Total Volume:	22,542	Vehicles per Day (combined entering vehicles)
8.23	Million Vehicles per Year	
24.68	Million entering vehicles during 3-Year Study Period	
9	Total number of collisions during Study Period	
0.36	Accident Rate in collisions per Million entering vehicles (MEV)	
0.15	NYSDOT Mean collision Rate (Urban 4-leg signalized intersection)	

Specific Collision Types

Left Turn	**5**	Total number of Left Turn accidents during accident study
	0.20	Accident Rate in Accidents per Million entering vehicles
	0.01	NYSDOT Mean Accident Rate
Overtaking	**1**	Total number of Overtaking accidents during accident study
	0.04	Accident Rate in Accidents per Million entering vehicles
	0.01	NYSDOT Mean Accident Rate
Rear End	**1**	Total number of Rear End accidents during accident study
	0.04	Accident Rate in Accidents per Million entering vehicles
	0.06	NYSDOT Mean Accident Rate

Yaphank Avenue-Horseblock Road at Sunrise Highway Exit 57 **Total Accidents: 4**

Day of Week	Number	%
Sunday	1	25.0%
Monday	0	---
Tuesday	1	25.0%
Wednesday	0	---
Thursday	0	---
Friday	1	25.0%
Saturday	1	25.0%
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	2	50.0%
10 am - 4 pm	1	25.0%
4 pm - 7 pm	1	25.0%
7 pm - 12 Mid	0	---
12 Mid - 6 am	0	---
Unspecified	0	---
Weather	Number	%
Clear	2	50.0%
Cloudy	2	50.0%
Fog	0	---
Rain	0	---
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	4	100.0%
Icy	0	---
Wet	0	---
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	1	25.0%
Northbound	1	25.0%
Southbound	2	50.0%
Unknown	0	---
Accident Type	Number	%
Overtaking	1	25.0%
Rear End	0	---
Right Angle	0	---
Left Turn	1	25.0%
Pedestrian	1	25.0%
Fixed Object	1	25.0%
Head-On	0	---
Other Type	0	---
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	2	50.0%
Property-Damage Only	2	50.0%
Light Conditions	Number	%
Day	4	100.0%
Night	0	---
Dawn / Dusk	0	---
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	0	---
Spring (Mar-May)	0	---
Summer (June-Aug)	2	50.0%
Fall (Sep-Nov)	2	50.0%

Accident Rate Calculations

ıank Avenue (CR 21):	2,268	vehicles per day (AADT Source: NYSDOT counts dated 2007)
ırise Highway Exit 57:	6,900	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	9,168	Vehicles per Day (combined entering vehicles)
3.35	Million Vehicles per Year	
10.04	Million entering vehicles during 3-Year Study Period	
4	Total number of collisions during Study Period	
0.40	Accident Rate in collisions per Million entering vehicles (MEV)	
0.04	NYSDOT Mean collision Rate (Urban 3-leg unsignalized intersection)	

Specific Collision Types

Overtaking	**1**	Total number of Overtaking accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate
Left Turn	**1**	Total number of Left Turn accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate
Pedestrian	**1**	Total number of Pedestrian accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate
Fixed Object	**1**	Total number of Fixed Object accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
	0.00	NYSDOT Mean Accident Rate

Horseblock Road (CR 16) at Woodside Avenue (CR 99) **Total Accidents: 10**

Day of Week	Number	%
Sunday		---
Monday	1	10.0%
Tuesday	1	10.0%
Wednesday	2	20.0%
Thursday		---
Friday	3	30.0%
Saturday	2	20.0%
Unknown		---
Time of Day	Number	%
6 am - 10 am	4	40.0%
10 am - 4 pm	3	30.0%
4 pm - 7 pm		---
7 pm - 12 Mid		---
12 Mid - 6 am	2	20.0%
Unspecified	1	10.0%
Weather	Number	%
Clear	4	40.0%
Cloudy	1	10.0%
Fog		---
Rain	2	20.0%
Sleet / Snow	1	10.0%
Unknown	2	20.0%
Pavement	Number	%
Dry	3	30.0%
Icy	3	30.0%
Wet	2	20.0%
Unknown	2	20.0%

Approach Direction	Number	%
Eastbound	3	30.0%
Westbound		---
Northbound	1	10.0%
Southbound	3	30.0%
Unknown	3	30.0%
Accident Type	Number	%
Overtaking	2	20.0%
Rear End	1	10.0%
Right Angle	2	20.0%
Left Turn		---
Pedestrian		---
Fixed Object	4	40.0%
Head-On		---
Other Type	1	10.0%
Severity	Number	%
Fatal Injury	1	10.0%
Non-Fatal Injury	5	50.0%
Property-Damage Only	4	40.0%
Light Conditions	Number	%
Day	7	70.0%
Night	1	10.0%
Dawn / Dusk		---
Unknown	2	20.0%
Time of Year	Number	%
Winter (Dec-Feb)	4	40.0%
Spring (Mar-May)	1	10.0%
Summer (June-Aug)	2	20.0%
Fall (Sep-Nov)	3	30.0%

Accident Rate Calculations

eblock Road (CR 16):	10,692	vehicles per day (AADT Source: NYSDOT counts dated 2007)
lside Avenue (CR 99):	7,168	vehicles per day (AADT Source: NYSDOT counts dated 2008)
Total Volume:	17,860	Vehicles per Day (combined entering vehicles)
6.52	Million Vehicles per Year	
19.56	Million entering vehicles during 3-Year Study Period	
10	Total number of collisions during Study Period	
0.51	Accident Rate in collisions per Million entering vehicles (MEV)	
0.11	NYSDOT Mean collision Rate (Urban 3-leg signalized intersection)	

Specific Collision Types

Fixed Object	**4**	Total number of Fixed Object accidents during accident study
	0.20	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate
Overtaking	**2**	Total number of Overtaking accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate
Right Angle	**2**	Total number of Right Angle accidents during accident study
	0.10	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate
Rear End	**1**	Total number of Rear End accidents during accident study
	0.05	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate

Horseblock Road (CR 16) at Brookhaven Town Landfill **Total Accidents: 0**

Day of Week	Number	%
Sunday	0	---
Monday	0	---
Tuesday	0	---
Wednesday	0	---
Thursday	0	---
Friday	0	---
Saturday	0	---
Unknown	0	---
Time of Day	Number	%
6 am - 10 am	0	---
10 am - 4 pm	0	---
4 pm - 7 pm	0	---
7 pm - 12 Mid	0	---
12 Mid - 6 am	0	---
Unspecified	0	---
Weather	Number	%
Clear	0	---
Cloudy	0	---
Fog	0	---
Rain	0	---
Sleet / Snow	0	---
Unknown	0	---
Pavement	Number	%
Dry	0	---
Icy	0	---
Wet	0	---
Unknown	0	---

Approach Direction	Number	%
Eastbound	0	---
Westbound	0	---
Northbound	0	---
Southbound	0	---
Unknown	0	---
Accident Type	Number	%
Overtaking	0	---
Rear End	0	---
Right Angle	0	---
Left Turn	0	---
Pedestrian	0	---
Fixed Object	0	---
Head-On	0	---
Other Type	0	---
Severity	Number	%
Fatal Injury	0	---
Non-Fatal Injury	0	---
Property-Damage Only	0	---
Light Conditions	Number	%
Day	0	---
Night	0	---
Dawn / Dusk	0	---
Unknown	0	---
Time of Year	Number	%
Winter (Dec-Feb)	0	---
Spring (Mar-May)	0	---
Summer (June-Aug)	0	---
Fall (Sep-Nov)	0	---

Accident Rate Calculations

eblock Road (CR 16):	14,358	vehicles per day (AADT Source: NYSDOT counts dated 2007)
khaven Town Landfill		vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	14,358	Vehicles per Day (combined entering vehicles)
	5.24	Million Vehicles per Year
	15.72	Million entering vehicles during 3-Year Study Period
	0	Total number of collisions during Study Period
	0.00	Accident Rate in collisions per Million entering vehicles (MEV)
	0.04	NYSDOT Mean collision Rate (Urban 3-leg signalized intersection)

Specific Collision Types

Overtaking	**0**	Total number of Overtaking accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate
Overtaking	**0**	Total number of Overtaking accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate
Right Angle	**0**	Total number of Right Angle accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate
Rear End	**0**	Total number of Rear End accidents during accident study
	0.00	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate

Horseblock Road (CR 16) at Sills Road (CR 101) **Total Accidents: 10**

Day of Week	Number	%
Sunday	1	10.0%
Monday	1	10.0%
Tuesday	2	20.0%
Wednesday	2	20.0%
Thursday	1	10.0%
Friday	2	20.0%
Saturday	1	10.0%
Unknown		---
Time of Day	Number	%
6 am - 10 am	3	30.0%
10 am - 4 pm	4	40.0%
4 pm - 7 pm	1	10.0%
7 pm - 12 Mid	1	10.0%
12 Mid - 6 am	1	10.0%
Unspecified		---
Weather	Number	%
Clear	6	60.0%
Cloudy	1	10.0%
Fog		---
Rain	1	10.0%
Sleet / Snow		---
Unknown	2	20.0%
Pavement	Number	%
Dry	7	70.0%
Icy		---
Wet	1	10.0%
Unknown	2	20.0%

Approach Direction	Number	%
Eastbound	1	10.0%
Westbound	1	10.0%
Northbound	1	10.0%
Southbound	4	40.0%
Unknown	3	30.0%
Accident Type	Number	%
Overtaking		---
Rear End	2	20.0%
Right Angle	3	30.0%
Left Turn	1	10.0%
Pedestrian		---
Fixed Object		---
Head-On		---
Other Type	4	40.0%
Severity	Number	%
Fatal Injury		---
Non-Fatal Injury	8	80.0%
Property-Damage Only	2	20.0%
Light Conditions	Number	%
Day	7	70.0%
Night	1	10.0%
Dawn / Dusk		---
Unknown	2	20.0%
Time of Year	Number	%
Winter (Dec-Feb)		---
Spring (Mar-May)	1	10.0%
Summer (June-Aug)	3	30.0%
Fall (Sep-Nov)	6	60.0%

Accident Rate Calculations

eblock Road (CR 16): 10,692 vehicles per day (AADT Source: NYSDOT counts dated 2007)
Sills Road (CR 101): 13,621 vehicles per day (AADT Source: NYSDOT counts dated 2008)
Total Volume: 24,313 Vehicles per Day (combined entering vehicles)
8.87 Million Vehicles per Year
26.62 Million entering vehicles during 3-Year Study Period
10 Total number of collisions during Study Period
0.38 Accident Rate in collisions per Million entering vehicles (MEV)
0.15 NYSDOT Mean collision Rate (Urban 4-leg signalized intersection)

Specific Collision Types

Right Angle
3 Total number of Right Angle accidents during accident study
0.11 Accident Rate in Accidents per Million entering vehicles
0.02 NYSDOT Mean Accident Rate

Rear End
2 Total number of Rear End accidents during accident study
0.08 Accident Rate in Accidents per Million entering vehicles
0.06 NYSDOT Mean Accident Rate

Left Turn
1 Total number of Left Turn accidents during accident study
0.04 Accident Rate in Accidents per Million entering vehicles
0.01 NYSDOT Mean Accident Rate

Horseblock Road at Bellport Road **Total Accidents: 23**

Day of Week	Number	%
Sunday	1	4.3%
Monday	5	21.7%
Tuesday		---
Wednesday	7	30.4%
Thursday	1	4.3%
Friday	7	30.4%
Saturday	2	8.7%
Unknown		---
Time of Day	Number	%
6 am - 10 am	8	34.8%
10 am - 4 pm	8	34.8%
4 pm - 7 pm	4	17.4%
7 pm - 12 Mid	2	8.7%
12 Mid - 6 am		---
Unspecified	1	4.3%
Weather	Number	%
Clear	12	52.2%
Cloudy	7	30.4%
Fog		---
Rain	2	8.7%
Sleet / Snow	1	4.3%
Unknown	1	4.3%
Pavement	Number	%
Dry	18	78.3%
Icy	1	4.3%
Wet	3	13.0%
Unknown	1	4.3%

Approach Direction	Number	%
Eastbound	5	21.7%
Westbound	1	4.3%
Northbound	7	30.4%
Southbound	3	13.0%
Unknown	7	30.4%
Accident Type	Number	%
Overtaking	2	8.7%
Rear End	7	30.4%
Right Angle	3	13.0%
Left Turn	2	8.7%
Pedestrian	1	4.3%
Fixed Object		---
Head-On		---
Other Type	8	34.8%
Severity	Number	%
Fatal Injury		---
Non-Fatal Injury	11	47.8%
Property-Damage Only	12	52.2%
Light Conditions	Number	%
Day	20	87.0%
Night	1	4.3%
Dawn / Dusk		---
Unknown	2	8.7%
Time of Year	Number	%
Winter (Dec-Feb)	7	30.4%
Spring (Mar-May)	6	26.1%
Summer (June-Aug)	5	21.7%
Fall (Sep-Nov)	5	21.7%

Accident Rate Calculations

eblock Road (CR 16): 21,828 vehicles per day (AADT Source: NYSDOT counts dated 2007)
Bellport Road: 5,100 vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume: 26,928 Vehicles per Day (combined entering vehicles)
9.83 Million Vehicles per Year
29.49 Million entering vehicles during 3-Year Study Period
23 Total number of collisions during Study Period
0.78 Accident Rate in collisions per Million entering vehicles (MEV)
0.32 NYSDOT Mean collision Rate (Urban 4-leg signalized intersection)

Specific Collision Types

Rear End
7 Total number of Rear End accidents during accident study
0.24 Accident Rate in Accidents per Million entering vehicles
0.11 NYSDOT Mean Accident Rate

Right Angle
3 Total number of Right Angle accidents during accident study
0.10 Accident Rate in Accidents per Million entering vehicles
0.04 NYSDOT Mean Accident Rate

Overtaking
2 Total number of Overtaking accidents during accident study
0.07 Accident Rate in Accidents per Million entering vehicles
0.02 NYSDOT Mean Accident Rate

Left Turn
2 Total number of Left Turn accidents during accident study
0.07 Accident Rate in Accidents per Million entering vehicles
0.04 NYSDOT Mean Accident Rate

Horseblock Road at LIE North Service Road **Total Accidents: 14**

Day of Week	Number	%
Sunday	3	21.4%
Monday	2	14.3%
Tuesday	2	14.3%
Wednesday		---
Thursday	1	7.1%
Friday	5	35.7%
Saturday	1	7.1%
Unknown		---
Time of Day	Number	%
6 am - 10 am	5	35.7%
10 am - 4 pm	7	50.0%
4 pm - 7 pm	1	7.1%
7 pm - 12 Mid	1	7.1%
12 Mid - 6 am		---
Unspecified		---
Weather	Number	%
Clear	8	57.1%
Cloudy	3	21.4%
Fog		---
Rain	3	21.4%
Sleet / Snow		---
Unknown		---
Pavement	Number	%
Dry	9	64.3%
Icy		---
Wet	5	35.7%
Unknown		---

Approach Direction	Number	%
Eastbound	1	7.1%
Westbound	2	14.3%
Northbound	7	50.0%
Southbound	1	7.1%
Unknown	3	21.4%
Accident Type	Number	%
Overtaking		---
Rear End	1	7.1%
Right Angle	7	50.0%
Left Turn	5	35.7%
Pedestrian		---
Fixed Object		---
Head-On		---
Other Type	1	7.1%
Severity	Number	%
Fatal Injury	1	7.1%
Non-Fatal Injury	12	85.7%
Property-Damage Only	1	7.1%
Light Conditions		%
Day	11	78.6%
Night	1	7.1%
Dawn / Dusk	1	7.1%
Unknown	1	7.1%
Time of Year	Number	%
Winter (Dec-Feb)		---
Spring (Mar-May)	4	28.6%
Summer (June-Aug)	5	35.7%
Fall (Sep-Nov)	5	35.7%

Accident Rate Calculations

eblock Road (CR 16):	21,161	vehicles per day (AADT Source: NYSDOT counts dated 2007)
E North Service Road:	5,600	vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume:	26,761	Vehicles per Day (combined entering vehicles)
	9.77	Million Vehicles per Year
	29.30	Million entering vehicles during 3-Year Study Period
	14	Total number of collisions during Study Period
	0.48	Accident Rate in collisions per Million entering vehicles (MEV)
	0.11	NYSDOT Mean collision Rate (Urban 4-leg signalized intersection)

Specific Collision Types

Right Angle	**7**	Total number of Right Angle accidents during accident study
	0.24	Accident Rate in Accidents per Million entering vehicles
	0.02	NYSDOT Mean Accident Rate
Left Turn	**5**	Total number of Left Turn accidents during accident study
	0.17	Accident Rate in Accidents per Million entering vehicles
	0.01	NYSDOT Mean Accident Rate
Rear End	**1**	Total number of Rear End accidents during accident study
	0.03	Accident Rate in Accidents per Million entering vehicles
	0.04	NYSDOT Mean Accident Rate
Fixed Object	**#NUM!**	Total number of Fixed Object accidents during accident study
	#NUM!	Accident Rate in Accidents per Million entering vehicles
		NYSDOT Mean Accident Rate

Horseblock Road at LIE South Service Road **Total Accidents: 12**

Day of Week	Number	%
Sunday		---
Monday	1	8.3%
Tuesday	3	25.0%
Wednesday	2	16.7%
Thursday	2	16.7%
Friday	2	16.7%
Saturday	2	16.7%
Unknown		---
Time of Day	Number	%
6 am - 10 am	1	8.3%
10 am - 4 pm	4	33.3%
4 pm - 7 pm	4	33.3%
7 pm - 12 Mid	1	8.3%
12 Mid - 6 am		---
Unspecified	2	16.7%
Weather	Number	%
Clear	7	58.3%
Cloudy	2	16.7%
Fog		---
Rain	2	16.7%
Sleet / Snow		---
Unknown	1	8.3%
Pavement	Number	%
Dry	8	66.7%
Icy		---
Wet	3	25.0%
Unknown	1	8.3%

Approach Direction	Number	%
Eastbound	2	16.7%
Westbound	3	25.0%
Northbound	1	8.3%
Southbound	2	16.7%
Unknown	3	25.0%
Accident Type	Number	%
Overtaking		---
Rear End	6	50.0%
Right Angle	2	16.7%
Left Turn		---
Pedestrian		---
Fixed Object		---
Head-On		---
Other Type	4	33.3%
Severity	Number	%
Fatal Injury		---
Non-Fatal Injury	9	75.0%
Property-Damage Only	3	25.0%
Light Conditions	Number	%
Day	8	66.7%
Night	3	25.0%
Dawn / Dusk		---
Unknown	1	8.3%
Time of Year	Number	%
Winter (Dec-Feb)		---
Spring (Mar-May)	4	33.3%
Summer (June-Aug)	6	50.0%
Fall (Sep-Nov)	2	16.7%

Accident Rate Calculations

eblock Road (CR 16): 21,161 vehicles per day (AADT Source: NYSDOT counts dated 2007)
E South Service Road: 7,400 vehicles per day (AADT Source: CEA counts dated 2010)
Total Volume: 28,561 Vehicles per Day (combined entering vehicles)
10.42 Million Vehicles per Year
31.27 Million entering vehicles during 3-Year Study Period
12 Total number of collisions during Study Period
0.38 Accident Rate in collisions per Million entering vehicles (MEV)
0.11 NYSDOT Mean collision Rate (Urban 3-leg signalized intersection)

Specific Collision Types

Rear End
6 Total number of Rear End accidents during accident study
0.19 Accident Rate in Accidents per Million entering vehicles
0.04 NYSDOT Mean Accident Rate

Right Angle
2 Total number of Right Angle accidents during accident study
0.06 Accident Rate in Accidents per Million entering vehicles
0.02 NYSDOT Mean Accident Rate

#NUM! **#NUM!** #NUM!
#NUM! Accident Rate in Accidents per Million entering vehicles
NYSDOT Mean Accident Rate

#NUM! **#NUM!** #NUM!
#NUM! Accident Rate in Accidents per Million entering vehicles
NYSDOT Mean Accident Rate

APPENDIX F: NO BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

Intersections

1. Yaphank Avenue (CR 21) at LIE North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road

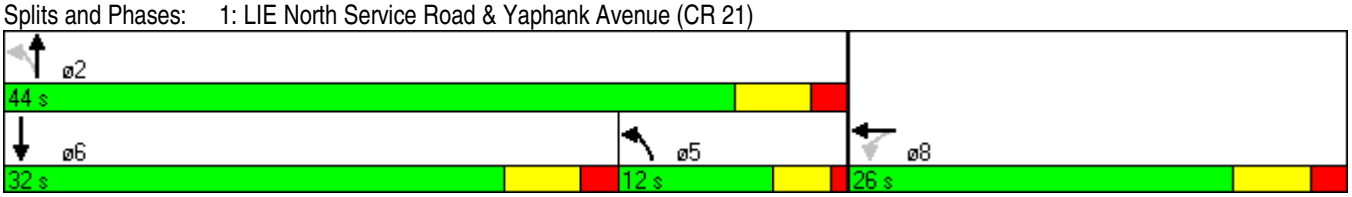
NO BUILD AM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	2	418	151	275
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	3.0	12.0	12.0
Minimum Split (s)	22.0	7.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	20.2	41.8	41.8	29.8
Actuated g/C Ratio	0.29	0.60	0.60	0.43
v/c Ratio	1.15dl	0.84	0.18	0.28
Control Delay	26.0	23.5	1.4	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.0	23.5	1.4	10.9
LOS	C	C	A	B
Approach Delay	26.0		17.6	10.9
Approach LOS	C		B	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

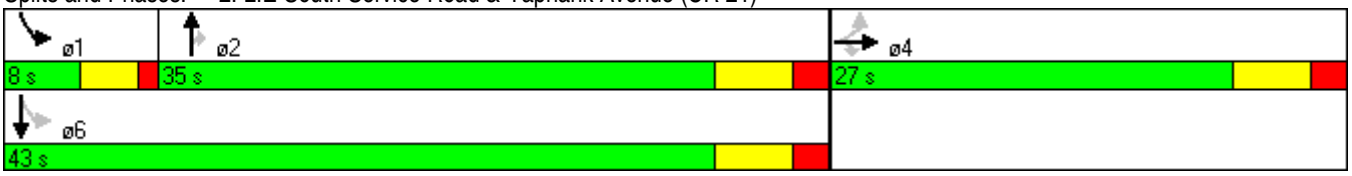


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	471	551	367	59	719
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	3.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	7.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	22.2	22.2	33.4	33.4	39.8	39.8
Actuated g/C Ratio	0.32	0.32	0.48	0.48	0.57	0.57
v/c Ratio	0.06	0.92	0.70	0.44	0.24	0.43
Control Delay	16.5	40.3	21.1	3.2	3.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	40.3	21.1	3.2	3.9	3.6
LOS	B	D	C	A	A	A
Approach Delay	39.0		13.9			3.6
Approach LOS	D		B			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	13	15	0	25	36	985	83	113	975	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.97	0.97	0.97	0.93	0.93	0.93
Hourly flow rate (vph)	2	0	15	18	0	29	37	1015	86	122	1048	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	2411	2467	524	1872	2413	1015	1081			1101		
vC1, stage 1 conf vol	1291	1291		1090	1090							
vC2, stage 2 conf vol	1119	1175		782	1324							
vCu, unblocked vol	2383	2442	409	1820	2386	1015	991			1101		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	97	89	100	88	94			81		
cM capacity (veh/h)	55	105	566	167	129	236	662			630		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	18	47	25	1028	86	122	524	524	32
Volume Left	2	18	25	12	0	122	0	0	0
Volume Right	15	29	0	0	86	0	0	0	32
cSH	253	204	662	662	1700	630	1700	1700	1700
Volume to Capacity	0.07	0.23	0.06	0.06	0.05	0.19	0.31	0.31	0.02
Queue Length 95th (ft)	6	22	4	4	0	18	0	0	0
Control Delay (s)	20.3	27.8	10.8	1.6	0.0	12.1	0.0	0.0	0.0
Lane LOS	C	D	B	A		B			
Approach Delay (s)	20.3	27.8	1.7			1.2			
Approach LOS	C	D							

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	112	929	15	33	704
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.88	0.88	0.85	0.85
Hourly flow rate (vph)	26	132	1056	17	39	828
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1962	1056			1073	
vC1, stage 1 conf vol	1056					
vC2, stage 2 conf vol	906					
vCu, unblocked vol	1962	1056			1073	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	52			94	
cM capacity (veh/h)	250	274			650	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	158	1056	17	39	828
Volume Left	26	0	0	39	0
Volume Right	132	0	17	0	0
cSH	270	1700	1700	650	1700
Volume to Capacity	0.58	0.62	0.01	0.06	0.49
Queue Length 95th (ft)	85	0	0	5	0
Control Delay (s)	35.6	0.0	0.0	10.9	0.0
Lane LOS	E			B	
Approach Delay (s)	35.6	0.0		0.5	
Approach LOS	E				

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	56	33	129	888	661	65
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	65	38	147	1009	743	73
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2045	743	743			
vC1, stage 1 conf vol	743					
vC2, stage 2 conf vol	1302					
vCu, unblocked vol	2045	743	743			
tC, single (s)	6.6	6.4	4.2			
tC, 2 stage (s)	5.6					
tF (s)	3.7	3.5	2.3			
p0 queue free %	63	90	82			
cM capacity (veh/h)	176	390	821			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	65	38	147	1009	743	73
Volume Left	65	0	147	0	0	0
Volume Right	0	38	0	0	0	73
cSH	176	390	821	1700	1700	1700
Volume to Capacity	0.37	0.10	0.18	0.59	0.44	0.04
Queue Length 95th (ft)	40	8	16	0	0	0
Control Delay (s)	37.1	15.2	10.3	0.0	0.0	0.0
Lane LOS	E	C	B			
Approach Delay (s)	29.0		1.3		0.0	
Approach LOS	D					

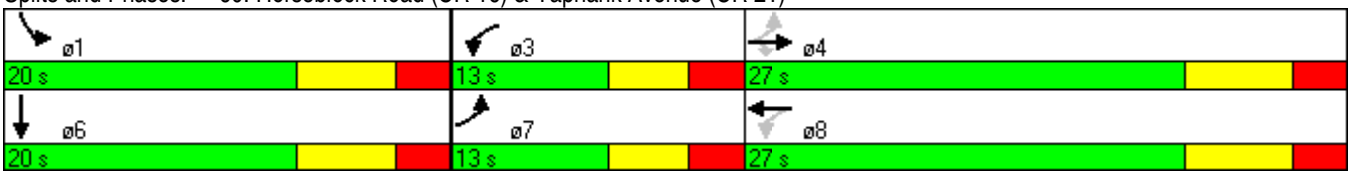
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	130	397	32	41	1041	193	105
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	1.0	1.0	3.0	1.0	4.0	8.0
Minimum Split (s)	10.0	8.3	8.3	10.0	8.3	11.0	15.0
Total Split (s)	13.0	27.0	27.0	13.0	27.0	20.0	20.0
Total Split (%)	21.7%	45.0%	45.0%	21.7%	45.0%	33.3%	33.3%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	35.8	32.2	32.2	33.7	27.0	14.7	14.7
Actuated g/C Ratio	0.60	0.54	0.54	0.56	0.45	0.24	0.24
v/c Ratio	0.41	0.24	0.04	0.08	0.69	0.56	0.28
Control Delay	10.4	9.8	4.9	5.4	18.0	25.4	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	9.8	4.9	5.4	18.0	25.4	19.7
LOS	B	A	A	A	B	C	B
Approach Delay		9.7			17.5		23.4
Approach LOS		A			B		C

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 56.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	559	1041	0	0	351
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	0	628	1096	0	0	413
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.74				0.74	0.74
vC, conflicting volume	1096				1253	548
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	428				640	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	49
cM capacity (veh/h)	835				302	803

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	157	157	157	157	548	548	413
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	413
cSH	1700	1700	1700	1700	1700	1700	803
Volume to Capacity	0.09	0.09	0.09	0.09	0.32	0.32	0.51
Queue Length 95th (ft)	0	0	0	0	0	0	75
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	14.1
Lane LOS							B
Approach Delay (s)	0.0				0.0		14.1
Approach LOS							B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	44	930	1083	65	67	520
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.91	0.91	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	48	1022	1177	71	71	553
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1632	624			1177	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1632	624			1177	
tC, single (s)	6.9	7.0			4.4	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	36	0			87	
cM capacity (veh/h)	76	416			531	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	48	1022	785	463	71	277	277
Volume Left	48	0	0	0	71	0	0
Volume Right	0	1022	0	71	0	0	0
cSH	76	416	1700	1700	531	1700	1700
Volume to Capacity	0.64	2.45	0.46	0.27	0.13	0.16	0.16
Queue Length 95th (ft)	72	2012	0	0	12	0	0
Control Delay (s)	113.3	682.5	0.0	0.0	12.8	0.0	0.0
Lane LOS	F	F			B		
Approach Delay (s)	656.8		0.0		1.5		
Approach LOS	F						

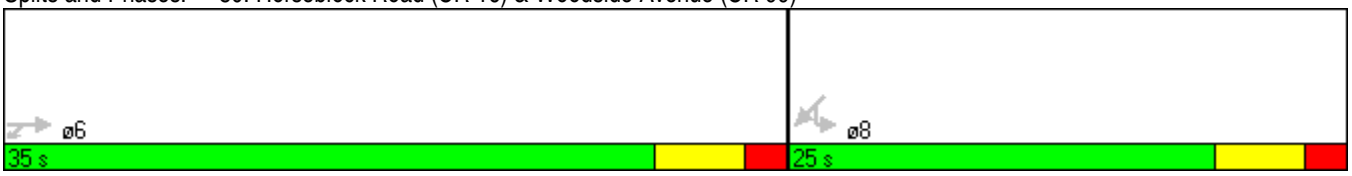
Intersection Summary			
Average Delay	239.2		
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	443	19	196
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	35.0	35.0	25.0
Total Split (%)	58.3%	58.3%	41.7%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	40.7	40.7	11.3
Actuated g/C Ratio	0.68	0.68	0.19
v/c Ratio	0.21	0.02	0.39
Control Delay	4.2	2.0	20.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.2	2.0	20.0
LOS	A	A	B
Approach Delay	4.1		20.0
Approach LOS	A		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 9.3 Intersection LOS: A
Intersection Capacity Utilization 25.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

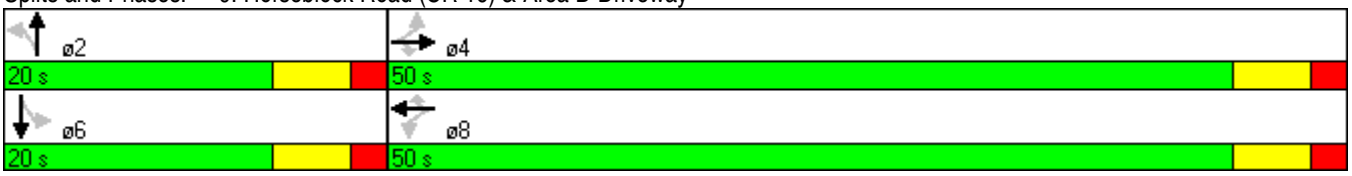


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	137	491	51	44	1094	253	44	0	41	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	10.0	7.0	7.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	20.0	20.0	20.0	20.0
Total Split (%)	71.4%	71.4%	71.4%	71.4%	71.4%	71.4%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	46.0	46.0	46.0	46.0	46.0	46.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23
v/c Ratio	1.41	0.23	0.05	0.08	0.94	0.24	0.16	0.07	0.15	0.06
Control Delay	250.7	5.2	1.5	4.9	28.1	1.2	23.3	0.2	23.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	250.7	5.2	1.5	4.9	28.1	1.2	23.3	0.2	23.1	0.3
LOS	F	A	A	A	C	A	C	A	C	A
Approach Delay		53.5			22.3			12.7		14.9
Approach LOS		D			C			B		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 15 (21%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 31.6 Intersection LOS: C
Intersection Capacity Utilization 84.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Driveway

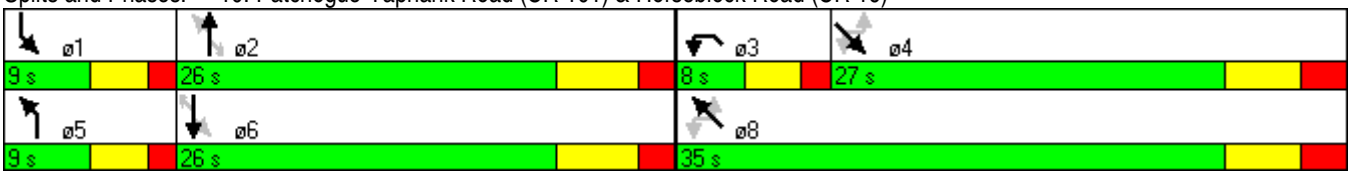


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	28	638	133	98	667	64	74	668	13	78	512	87
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	16.2	16.2	8.5	16.2	16.2	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.8	23.8	23.8	29.4	27.4	27.4	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.40	0.34	0.34	0.42	0.39	0.39	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.12	0.65	0.26	0.44	0.58	0.12	0.65	1.39	0.03	0.48	0.80	0.15
Control Delay	12.3	23.4	4.7	17.4	19.9	5.5	34.1	203.4	4.0	20.7	27.3	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	23.4	4.7	17.4	19.9	5.5	34.1	203.4	4.0	20.7	27.3	3.4
LOS	B	C	A	B	B	A	C	F	A	C	C	A
Approach Delay		19.9			18.5			183.5			23.5	
Approach LOS		B			B			F			C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.39
Intersection Signal Delay: 60.7 Intersection LOS: E
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

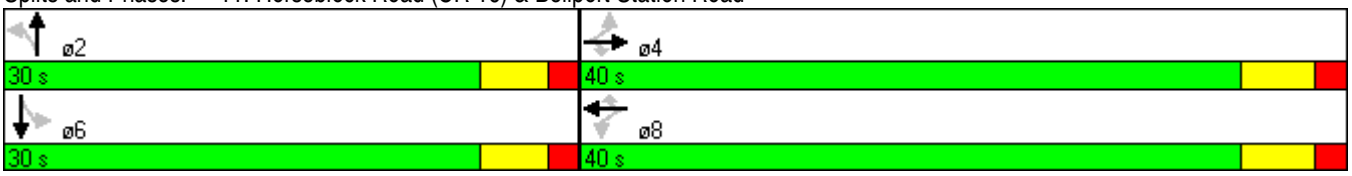


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	14	582	195	2	526	51	243	115	89	188
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.82	0.28		0.69	0.08		1.01		0.56
Control Delay		23.2	3.5		20.4	10.6		72.1		21.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		23.2	3.5		20.4	10.6		72.1		21.4
LOS		C	A		C	B		E		C
Approach Delay		18.3			19.5			72.1		21.4
Approach LOS		B			B			E		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 28.9 Intersection LOS: C
Intersection Capacity Utilization 87.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

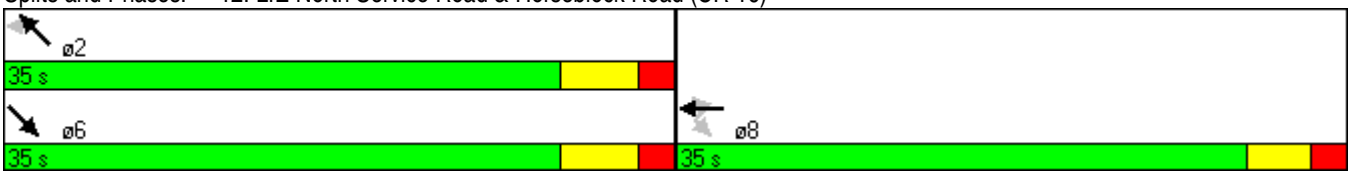


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	404	124	618	513	492
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	20.0	20.0	20.0
Minimum Split (s)	21.3	21.3	26.0	26.0	26.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	22.8	22.8	39.2	39.2	39.2
Actuated g/C Ratio	0.33	0.33	0.56	0.56	0.56
v/c Ratio	0.64	0.24	0.39	1.92	0.54
Control Delay	22.2	3.9	9.9	437.2	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	3.9	9.9	437.2	12.6
LOS	C	A	A	F	B
Approach Delay	19.3		9.9		229.3
Approach LOS	B		A		F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.92
Intersection Signal Delay: 98.2 Intersection LOS: F
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

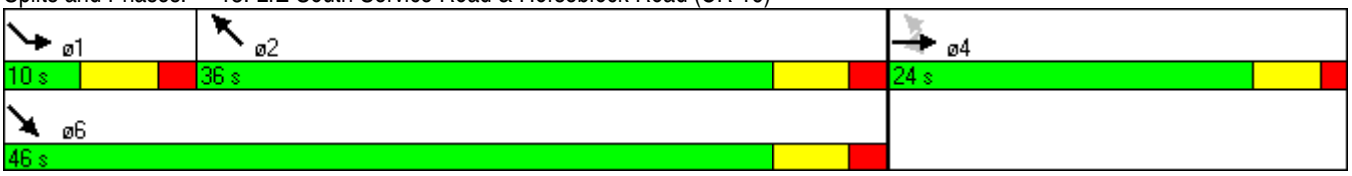


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	99	72	662	269	451	867
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	20.0	20.0	6.0	42.0	32.0
Actuated g/C Ratio	0.29	0.29	0.29	0.09	0.60	0.46
v/c Ratio	0.20	0.15	1.16	1.11	0.26	1.09
Control Delay	20.2	19.7	106.1	121.8	5.3	77.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	19.7	106.1	121.8	5.3	77.8
LOS	C	B	F	F	A	E
Approach Delay		88.4			48.8	77.8
Approach LOS		F			D	E

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 72.7 Intersection LOS: E
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



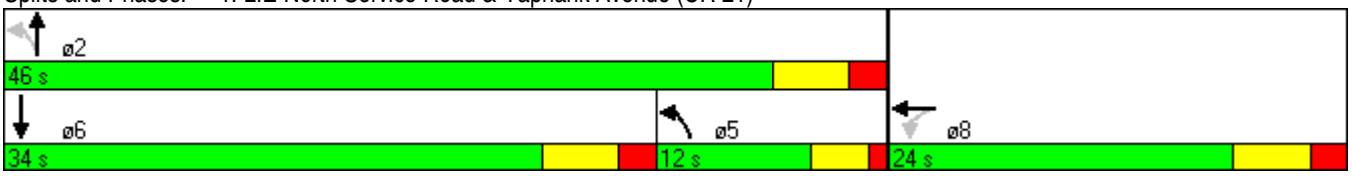
NO BUILD MIDDAY PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	0	336	271	199
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	12.3	49.7	49.7	37.7
Actuated g/C Ratio	0.18	0.71	0.71	0.54
v/c Ratio	0.46	0.49	0.27	0.15
Control Delay	22.0	4.2	1.3	7.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.0	4.2	1.3	7.0
LOS	C	A	A	A
Approach Delay	22.0		2.9	7.0
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

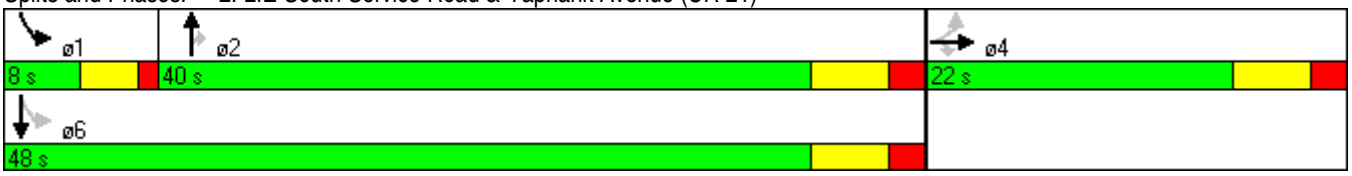


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	6	259	542	212	73	320
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.9	10.9	42.8	42.8	51.1	51.1
Actuated g/C Ratio	0.16	0.16	0.61	0.61	0.73	0.73
v/c Ratio	0.24	0.58	0.53	0.23	0.15	0.13
Control Delay	27.1	9.1	11.5	2.0	2.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	9.1	11.5	2.0	2.3	1.7
LOS	C	A	B	A	A	A
Approach Delay	12.6		8.8			1.8
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 7.8 Intersection LOS: A
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	0	42	19	2	47	15	510	32	45	546	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.88	0.88	0.88	0.92	0.92	0.92
Hourly flow rate (vph)	44	0	49	22	2	55	17	580	36	49	593	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1361	1341	297	1058	1329	580	617			616		
vC1, stage 1 conf vol	691	691		614	614							
vC2, stage 2 conf vol	670	650		444	715							
vCu, unblocked vol	1361	1341	297	1058	1329	580	617			616		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	100	93	94	99	88	98			95		
cM capacity (veh/h)	247	315	700	349	324	458	959			960		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	93	80	17	580	36	49	297	297	24
Volume Left	44	22	17	0	0	49	0	0	0
Volume Right	49	55	0	0	36	0	0	0	24
cSH	377	416	959	1700	1700	960	1700	1700	1700
Volume to Capacity	0.25	0.19	0.02	0.34	0.02	0.05	0.17	0.17	0.01
Queue Length 95th (ft)	24	18	1	0	0	4	0	0	0
Control Delay (s)	17.7	15.7	8.8	0.0	0.0	9.0	0.0	0.0	0.0
Lane LOS	C	C	A			A			
Approach Delay (s)	17.7	15.7	0.2			0.7			
Approach LOS	C	C							

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	52	549	13	45	393
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	15	61	584	14	51	442
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1127	584			598	
vC1, stage 1 conf vol	584					
vC2, stage 2 conf vol	543					
vCu, unblocked vol	1127	584			598	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	88			95	
cM capacity (veh/h)	431	511			979	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	76	584	14	51	442
Volume Left	15	0	0	51	0
Volume Right	61	0	14	0	0
cSH	493	1700	1700	979	1700
Volume to Capacity	0.16	0.34	0.01	0.05	0.26
Queue Length 95th (ft)	14	0	0	4	0
Control Delay (s)	13.6	0.0	0.0	8.9	0.0
Lane LOS	B			A	
Approach Delay (s)	13.6	0.0		0.9	
Approach LOS	B				

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	114	78	76	453	326	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	134	92	89	533	384	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1095	384	384			
vC1, stage 1 conf vol	384					
vC2, stage 2 conf vol	712					
vCu, unblocked vol	1095	384	384			
tC, single (s)	6.5	6.3	4.3			
tC, 2 stage (s)	5.5					
tF (s)	3.6	3.4	2.3			
p0 queue free %	65	86	92			
cM capacity (veh/h)	388	638	1102			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	134	92	89	533	384	71
Volume Left	134	0	89	0	0	0
Volume Right	0	92	0	0	0	71
cSH	388	638	1102	1700	1700	1700
Volume to Capacity	0.35	0.14	0.08	0.31	0.23	0.04
Queue Length 95th (ft)	38	13	7	0	0	0
Control Delay (s)	19.1	11.6	8.6	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	16.1		1.2		0.0	
Approach LOS	C					

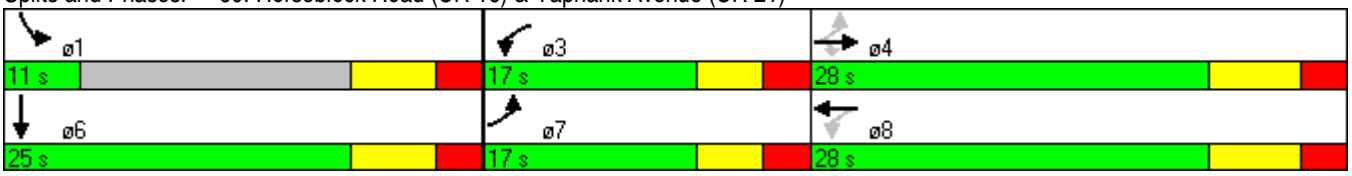
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	133	555	36	79	983	220	100
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	11.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	15.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	42.0	33.2	33.2	39.6	32.0	18.0	18.0
Actuated g/C Ratio	0.60	0.47	0.47	0.57	0.46	0.26	0.26
v/c Ratio	0.42	0.40	0.05	0.18	0.66	0.62	0.55
Control Delay	14.5	14.9	5.8	7.3	20.6	29.9	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	14.9	5.8	7.3	20.6	29.9	17.9
LOS	B	B	A	A	C	C	B
Approach Delay		14.3			19.6		23.8
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 18.8 Intersection LOS: B
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	724	986	0	0	131
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.91	0.91
Hourly flow rate (vph)	0	770	1006	0	0	144
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.77				0.77	0.77
vC, conflicting volume	1006				1199	503
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	398				649	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	83
cM capacity (veh/h)	887				308	831

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	193	193	193	193	503	503	144
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	144
cSH	1700	1700	1700	1700	1700	1700	831
Volume to Capacity	0.11	0.11	0.11	0.11	0.30	0.30	0.17
Queue Length 95th (ft)	0	0	0	0	0	0	16
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS							B
Approach Delay (s)	0.0				0.0		10.2
Approach LOS							B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	143	861	530	70	139	646
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.96	0.96	0.91	0.91
Hourly flow rate (vph)	155	936	552	73	153	710
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1249	312			552	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1249	312			552	
tC, single (s)	7.0	7.1			4.2	
tC, 2 stage (s)						
tF (s)	3.6	3.4			2.3	
p0 queue free %	0	0			84	
cM capacity (veh/h)	130	660			980	

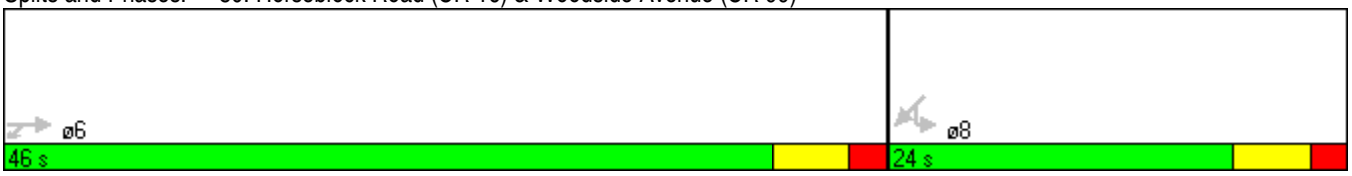
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	155	936	368	257	153	355	355
Volume Left	155	0	0	0	153	0	0
Volume Right	0	936	0	73	0	0	0
cSH	130	660	1700	1700	980	1700	1700
Volume to Capacity	1.19	1.42	0.22	0.15	0.16	0.21	0.21
Queue Length 95th (ft)	234	1067	0	0	14	0	0
Control Delay (s)	205.2	215.3	0.0	0.0	9.3	0.0	0.0
Lane LOS	F	F			A		
Approach Delay (s)	213.9		0.0		1.7		
Approach LOS	F						

Intersection Summary			
Average Delay	91.1		
Intersection Capacity Utilization	76.9%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	516	21	447
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	45.4	45.4	16.6
Actuated g/C Ratio	0.65	0.65	0.24
v/c Ratio	0.26	0.02	0.58
Control Delay	3.3	1.0	30.7
Queue Delay	0.0	0.0	0.0
Total Delay	3.3	1.0	30.7
LOS	A	A	C
Approach Delay	3.2		30.7
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 33.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	22	630	82	75	639	41	72	0	89	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	7.0	7.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	20.0	20.0	20.0	20.0
Total Split (%)	71.4%	71.4%	71.4%	71.4%	71.4%	71.4%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	46.0	46.0	46.0	46.0	46.0	46.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23
v/c Ratio	0.07	0.29	0.08	0.19	0.57	0.04	0.28	0.18	0.33	0.09
Control Delay	3.0	3.2	0.3	9.5	16.3	3.4	25.2	0.7	26.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	3.2	0.3	9.5	16.3	3.4	25.2	0.7	26.3	0.3
LOS	A	A	A	A	B	A	C	A	C	A
Approach Delay		2.9			14.9			11.5		17.3
Approach LOS		A			B			B		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 9.9 Intersection LOS: A
Intersection Capacity Utilization 58.6% ICU Level of Service B
Analysis Period (min) 15

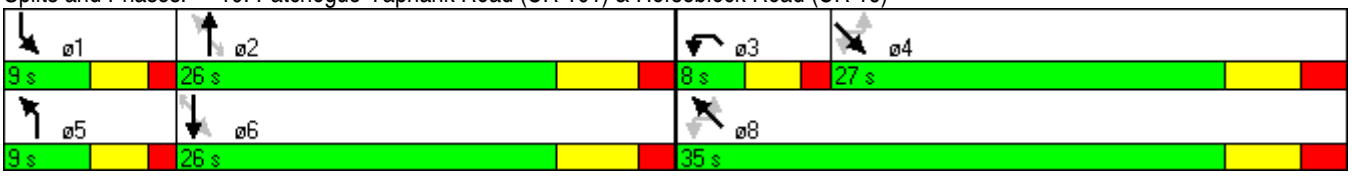
Splits and Phases: 9: Horseblock Road (CR 16) &

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	30	569	90	53	536	70	38	498	90	179	460	67
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.0	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	29.4	27.4	27.4	23.0	23.0	23.0	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.42	0.39	0.39	0.33	0.33	0.33	0.44	0.44	0.44
v/c Ratio	0.09	0.48	0.16	0.17	0.44	0.12	0.25	1.06	0.18	1.09	0.73	0.12
Control Delay	11.9	19.8	5.2	12.8	18.0	5.5	10.1	62.9	1.5	109.6	19.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	19.8	5.2	12.8	18.0	5.5	10.1	62.9	1.5	109.6	19.5	2.8
LOS	B	B	A	B	B	A	B	E	A	F	B	A
Approach Delay		17.5			16.3			50.9			40.8	
Approach LOS		B			B			D			D	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 31.5 Intersection LOS: C
Intersection Capacity Utilization 68.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

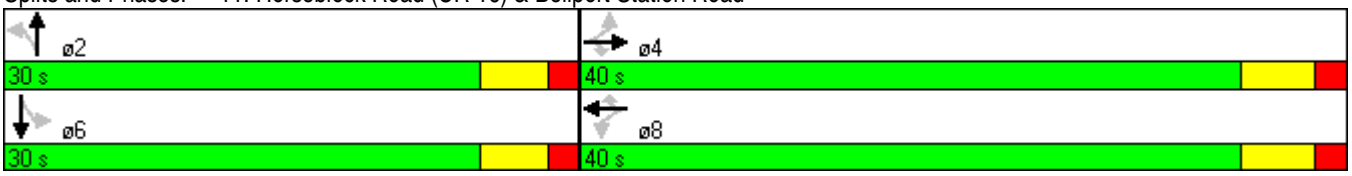


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	18	576	297	11	638	32	346	160	55	121
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.86	0.38		0.93	0.06		1.26		0.36
Control Delay		24.9	2.9		38.0	10.0		158.3		17.3
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		24.9	2.9		38.0	10.0		158.3		17.3
LOS		C	A		D	B		F		B
Approach Delay		17.6			36.7			158.3		17.3
Approach LOS		B			D			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 56.0 Intersection LOS: E
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

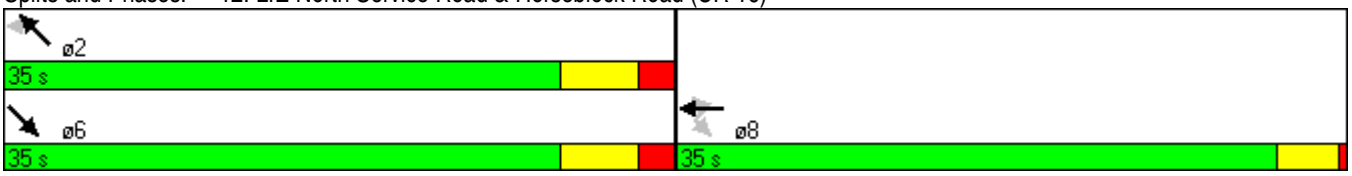


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	257	118	839	500	677
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	22.0	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	45.0	45.0	45.0
Actuated g/C Ratio	0.24	0.24	0.64	0.64	0.64
v/c Ratio	0.63	0.29	0.40	1.80	0.61
Control Delay	26.5	5.7	7.1	378.8	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	5.7	7.1	378.8	10.4
LOS	C	A	A	F	B
Approach Delay	22.5		7.1		166.9
Approach LOS	C		A		F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.80
Intersection Signal Delay: 78.0 Intersection LOS: E
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

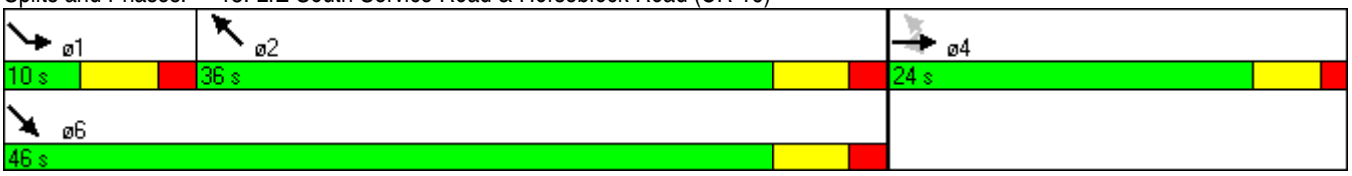


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	137	99	460	308	663	932
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.1	18.1	18.1	7.9	43.9	32.0
Actuated g/C Ratio	0.26	0.26	0.26	0.11	0.63	0.46
v/c Ratio	0.28	0.21	0.90	0.89	0.34	1.25
Control Delay	21.5	20.6	35.1	66.1	5.2	139.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	20.6	35.1	66.1	5.2	139.9
LOS	C	C	D	E	A	F
Approach Delay		30.4			24.5	139.9
Approach LOS		C			C	F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 69.6 Intersection LOS: E
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



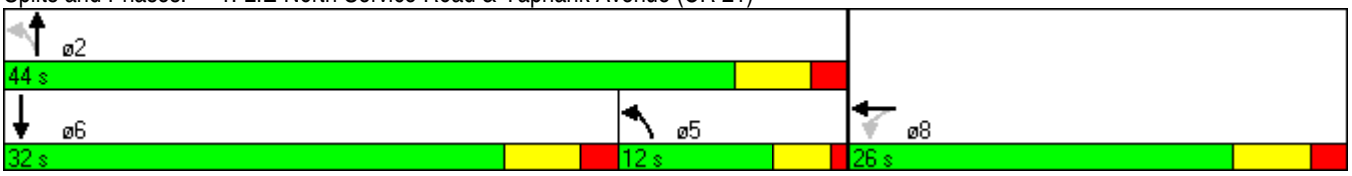
NO BUILD PM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	7	402	319	227
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	15.6	46.4	46.4	34.4
Actuated g/C Ratio	0.22	0.66	0.66	0.49
v/c Ratio	0.57	0.60	0.33	0.16
Control Delay	22.9	4.6	1.1	9.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.9	4.6	1.1	9.5
LOS	C	A	A	A
Approach Delay	22.9		3.1	9.5
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

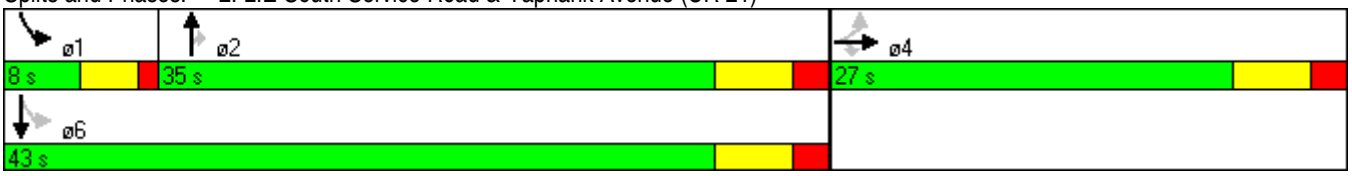


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	548	666	462	91	488
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.5	21.5	34.1	34.1	40.5	40.5
Actuated g/C Ratio	0.31	0.31	0.49	0.49	0.58	0.58
v/c Ratio	0.19	0.92	0.89	0.54	0.46	0.26
Control Delay	18.0	32.6	34.0	3.6	13.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	32.6	34.0	3.6	13.2	4.0
LOS	B	C	C	A	B	A
Approach Delay	30.6		21.6			5.4
Approach LOS	C		C			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 20.4 Intersection LOS: C
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	0	28	22	0	47	14	979	18	13	1096	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.59	0.59	0.59	0.43	0.43	0.43	0.91	0.91	0.91	0.97	0.97	0.97
Hourly flow rate (vph)	31	0	47	51	0	109	15	1076	20	13	1130	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.99	0.99	0.99	0.99	0.99		0.99					
vC, conflicting volume	2373	2283	565	1746	2271	1076	1137			1096		
vC1, stage 1 conf vol	1157	1157		1107	1107							
vC2, stage 2 conf vol	1216	1126		639	1164							
vCu, unblocked vol	2363	2272	528	1727	2260	1076	1109			1096		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	57	100	90	73	100	49	98			98		
cM capacity (veh/h)	71	183	487	189	183	215	616			633		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	78	160	15	1076	20	13	565	565	7
Volume Left	31	51	15	0	0	13	0	0	0
Volume Right	47	109	0	0	20	0	0	0	7
cSH	148	206	616	1700	1700	633	1700	1700	1700
Volume to Capacity	0.53	0.78	0.02	0.63	0.01	0.02	0.33	0.33	0.00
Queue Length 95th (ft)	64	136	2	0	0	2	0	0	0
Control Delay (s)	53.6	65.6	11.0	0.0	0.0	10.8	0.0	0.0	0.0
Lane LOS	F	F	B			B			
Approach Delay (s)	53.6	65.6	0.2			0.1			
Approach LOS	F	F							

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	34	894	14	99	748
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	7	41	972	15	105	796
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1978	972			987	
vC1, stage 1 conf vol	972					
vC2, stage 2 conf vol	1006					
vCu, unblocked vol	1978	972			987	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	87			85	
cM capacity (veh/h)	232	306			700	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	972	15	105	796
Volume Left	7	0	0	105	0
Volume Right	41	0	15	0	0
cSH	293	1700	1700	700	1700
Volume to Capacity	0.16	0.57	0.01	0.15	0.47
Queue Length 95th (ft)	14	0	0	13	0
Control Delay (s)	19.6	0.0	0.0	11.1	0.0
Lane LOS	C			B	
Approach Delay (s)	19.6	0.0		1.3	
Approach LOS	C				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	172	82	51	736	736	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	202	96	58	836	818	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1770	818	818			
vC1, stage 1 conf vol	818					
vC2, stage 2 conf vol	952					
vCu, unblocked vol	1770	818	818			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.3			
p0 queue free %	26	74	93			
cM capacity (veh/h)	274	373	781			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	202	96	58	836	818	27
Volume Left	202	0	58	0	0	0
Volume Right	0	96	0	0	0	27
cSH	274	373	781	1700	1700	1700
Volume to Capacity	0.74	0.26	0.07	0.49	0.48	0.02
Queue Length 95th (ft)	133	25	6	0	0	0
Control Delay (s)	47.8	18.0	10.0	0.0	0.0	0.0
Lane LOS	E	C	A			
Approach Delay (s)	38.1		0.6		0.0	
Approach LOS	E					

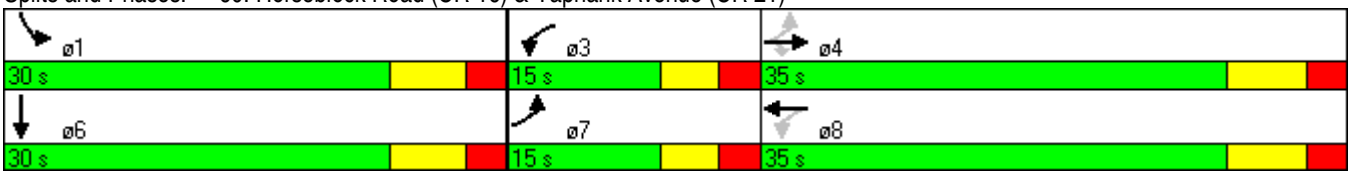
Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	243	1305	44	29	591	566	304
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	15.0	35.0	35.0	15.0	35.0	30.0	30.0
Total Split (%)	18.8%	43.8%	43.8%	18.8%	43.8%	37.5%	37.5%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	45.2	40.8	40.8	39.3	31.1	26.0	26.0
Actuated g/C Ratio	0.56	0.51	0.51	0.49	0.39	0.32	0.32
v/c Ratio	0.65	0.87	0.06	0.12	0.46	1.17	0.58
Control Delay	17.0	23.8	3.8	8.9	19.6	123.6	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	23.8	3.8	8.9	19.6	123.6	27.2
LOS	B	C	A	A	B	F	C
Approach Delay		22.2			19.0		89.9
Approach LOS		C			B		F

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 37 (46%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 40.6 Intersection LOS: D
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	1592	593	0	0	221
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1769	659	0	0	246
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	659				1101	329
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	308				817	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	74
cM capacity (veh/h)	1087				274	943

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	442	442	442	442	329	329	246
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	246
cSH	1700	1700	1700	1700	1700	1700	943
Volume to Capacity	0.26	0.26	0.26	0.26	0.19	0.19	0.26
Queue Length 95th (ft)	0	0	0	0	0	0	26
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS							B
Approach Delay (s)	0.0				0.0		10.2
Approach LOS							B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	69	475	222	547	279	1488
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.95	0.95	0.86	0.86	0.90	0.90
Hourly flow rate (vph)	73	500	258	636	310	1653
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2023	447			258	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2023	447			258	
tC, single (s)	6.9	7.0			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	9			76	
cM capacity (veh/h)	37	551			1304	

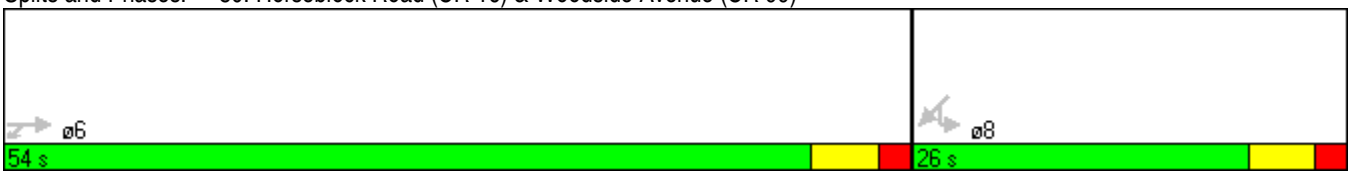
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	73	500	172	722	310	827	827
Volume Left	73	0	0	0	310	0	0
Volume Right	0	500	0	636	0	0	0
cSH	37	551	1700	1700	1304	1700	1700
Volume to Capacity	1.97	0.91	0.10	0.42	0.24	0.49	0.49
Queue Length 95th (ft)	198	272	0	0	23	0	0
Control Delay (s)	684.6	46.5	0.0	0.0	8.6	0.0	0.0
Lane LOS	F	E			A		
Approach Delay (s)	127.4		0.0		1.4		
Approach LOS	F						

Intersection Summary			
Average Delay	22.1		
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	806	14	272
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	55.8	55.8	16.2
Actuated g/C Ratio	0.70	0.70	0.20
v/c Ratio	0.37	0.01	0.60
Control Delay	2.5	0.5	23.5
Queue Delay	0.0	0.0	0.0
Total Delay	2.5	0.5	23.5
LOS	A	A	C
Approach Delay	2.5		23.5
Approach LOS	A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 40.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	35	1197	3	3	674	65	21	0	244	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	56.0	56.0	56.0	56.0	56.0	56.0	24.0	24.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	52.0	52.0	52.0	52.0	52.0	52.0	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25
v/c Ratio	0.12	0.61	0.00	0.02	0.61	0.07	0.09	0.07	0.77	0.24
Control Delay	5.9	8.1	3.0	7.7	20.0	5.0	24.1	2.4	45.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.9	8.1	3.0	7.7	20.0	5.0	24.1	2.4	45.0	1.0
LOS	A	A	A	A	C	A	C	A	D	A
Approach Delay		8.0			18.7			12.4		29.6
Approach LOS		A			B			B		C

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 6 (8%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 14.5 Intersection LOS: B
Intersection Capacity Utilization 62.3% ICU Level of Service B
Analysis Period (min) 15

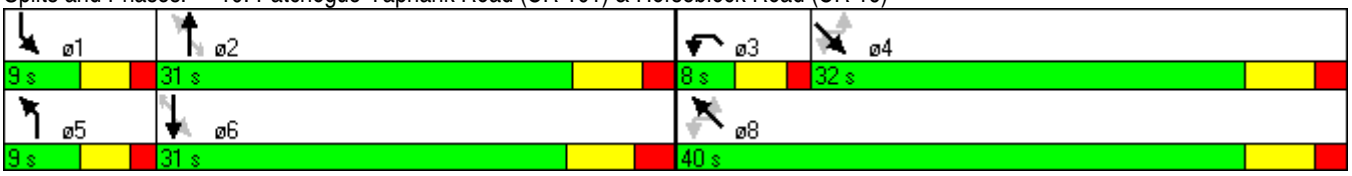
Splits and Phases: 9: Horseblock Road (CR 16) &

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	40	887	56	80	742	72	19	679	95	190	660	164
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	31.0	31.0	9.0	31.0	31.0	32.0	32.0	32.0	8.0	40.0	40.0
Total Split (%)	11.3%	38.8%	38.8%	11.3%	38.8%	38.8%	40.0%	40.0%	40.0%	10.0%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.0	4.0	4.2	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	1.5	2.0	2.0	1.5	2.5	2.5	2.0	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.5	-2.5	-2.2	-2.2	-2.2	-0.5	-2.2	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	32.8	28.8	28.8	33.6	30.6	30.6	28.0	28.0	28.0	36.0	36.0	36.0
Actuated g/C Ratio	0.41	0.36	0.36	0.42	0.38	0.38	0.35	0.35	0.35	0.45	0.45	0.45
v/c Ratio	0.21	0.85	0.11	0.47	0.66	0.14	0.24	1.30	0.19	1.32	0.98	0.25
Control Delay	15.0	32.8	5.9	21.0	24.2	5.3	15.9	162.2	4.5	201.0	53.6	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	32.8	5.9	21.0	24.2	5.3	15.9	162.2	4.5	201.0	53.6	3.8
LOS	B	C	A	C	C	A	B	F	A	F	D	A
Approach Delay		30.5			22.4			139.9			73.2	
Approach LOS		C			C			F			E	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 64.0 Intersection LOS: E
Intersection Capacity Utilization 88.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

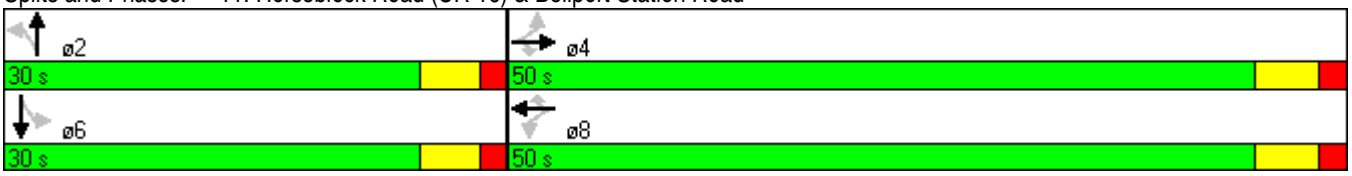


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	53	706	384	7	651	123	246	204	116	200
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		26.0		26.0
Actuated g/C Ratio		0.58	0.58		0.58	0.58		0.32		0.32
v/c Ratio		1.04	0.40		0.78	0.17		1.29		0.79
Control Delay		62.7	4.4		26.8	12.5		176.3		37.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		62.7	4.4		26.8	12.5		176.3		37.4
LOS		E	A		C	B		F		D
Approach Delay		43.1			24.5			176.3		37.4
Approach LOS		D			C			F		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 46 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 59.1 Intersection LOS: E
Intersection Capacity Utilization 125.4% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

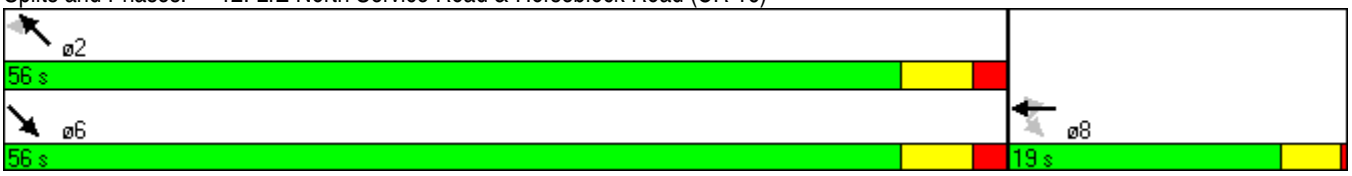


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	370	135	1043	681	752
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	9.8	9.8	22.0	22.0	22.0
Total Split (s)	19.0	19.0	56.0	56.0	56.0
Total Split (%)	25.3%	25.3%	74.7%	74.7%	74.7%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	15.0	15.0	52.0	52.0	52.0
Actuated g/C Ratio	0.20	0.20	0.69	0.69	0.69
v/c Ratio	1.01	0.35	0.44	2.82	0.64
Control Delay	66.6	7.5	5.6	836.1	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	66.6	7.5	5.6	836.1	2.4
LOS	E	A	A	F	A
Approach Delay	56.8		5.6		398.6
Approach LOS	E		A		F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.82
Intersection Signal Delay: 188.3 Intersection LOS: F
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

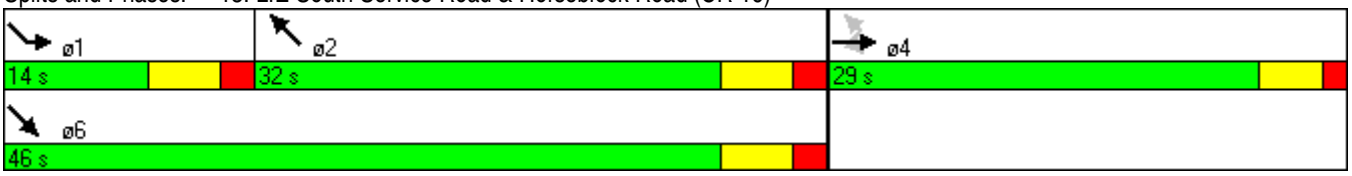


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	274	152	612	469	876	1087
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	25.0	25.0	25.0	10.0	42.0	28.0
Actuated g/C Ratio	0.33	0.33	0.33	0.13	0.56	0.37
v/c Ratio	0.48	0.28	1.26	1.14	0.49	1.59
Control Delay	22.8	19.9	153.9	119.3	7.8	295.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	19.9	153.9	119.3	7.8	295.4
LOS	C	B	F	F	A	F
Approach Delay		99.7			46.6	295.4
Approach LOS		F			D	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.59
Intersection Signal Delay: 138.1 Intersection LOS: F
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



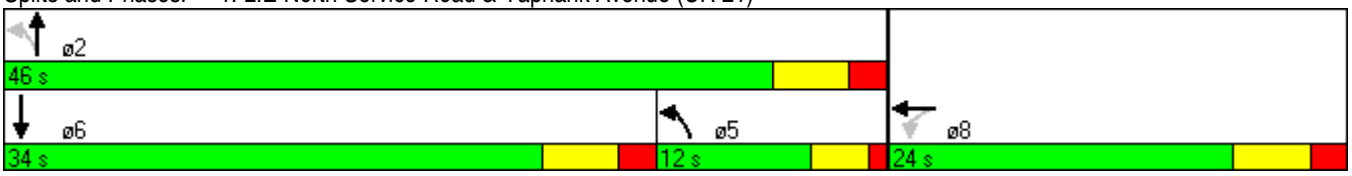
NO BUILD SATURDAY PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	6	211	215	150
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	11.2	50.8	50.8	38.8
Actuated g/C Ratio	0.16	0.73	0.73	0.55
v/c Ratio	0.39	0.28	0.20	0.12
Control Delay	21.6	1.4	1.0	5.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.6	1.4	1.0	5.6
LOS	C	A	A	A
Approach Delay	21.6		1.2	5.6
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 6.9 Intersection LOS: A
Intersection Capacity Utilization 37.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

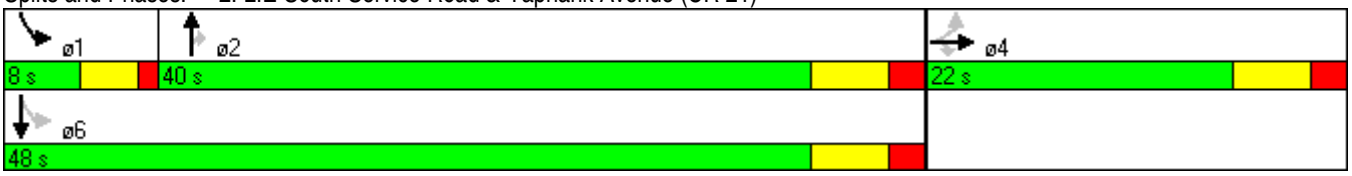


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	230	350	172	62	216
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.5	11.5	42.2	42.2	50.5	50.5
Actuated g/C Ratio	0.16	0.16	0.60	0.60	0.72	0.72
v/c Ratio	0.32	0.56	0.38	0.21	0.11	0.10
Control Delay	28.0	8.6	9.8	2.1	2.0	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	8.6	9.8	2.1	2.0	1.8
LOS	C	A	A	A	A	A
Approach Delay	13.7		7.2			1.8
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 7.7 Intersection LOS: A
Intersection Capacity Utilization 37.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	7	0	0	3	6	487	0	0	416	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	8	0	0	4	7	560	0	0	433	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1010	1007	217	798	1012	560	439			560		
vC1, stage 1 conf vol	433	433		574	574							
vC2, stage 2 conf vol	577	574		225	439							
vCu, unblocked vol	1010	1007	217	798	1012	560	439			560		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	100	100	99	99			100		
cM capacity (veh/h)	391	424	788	436	421	472	1118			1007		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	16	4	7	560	0	0	217	217	5
Volume Left	8	0	7	0	0	0	0	0	0
Volume Right	8	4	0	0	0	0	0	0	5
cSH	523	472	1118	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.01	0.01	0.33	0.00	0.00	0.13	0.13	0.00
Queue Length 95th (ft)	2	1	0	0	0	0	0	0	0
Control Delay (s)	12.1	12.7	8.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B	A						
Approach Delay (s)	12.1	12.7	0.1			0.0			
Approach LOS	B	B							

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	75	384	29	84	347
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.91	0.91
Hourly flow rate (vph)	16	88	452	34	92	381
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1018	452			486	
vC1, stage 1 conf vol	452					
vC2, stage 2 conf vol	566					
vCu, unblocked vol	1018	452			486	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	85			91	
cM capacity (veh/h)	447	608			1077	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	105	452	34	92	381
Volume Left	16	0	0	92	0
Volume Right	88	0	34	0	0
cSH	575	1700	1700	1077	1700
Volume to Capacity	0.18	0.27	0.02	0.09	0.22
Queue Length 95th (ft)	17	0	0	7	0
Control Delay (s)	12.6	0.0	0.0	8.7	0.0
Lane LOS	B			A	
Approach Delay (s)	12.6	0.0		1.7	
Approach LOS	B				

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	71	64	36	350	314	33
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	84	75	42	412	369	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	866	369	369			
vC1, stage 1 conf vol	369					
vC2, stage 2 conf vol	496					
vCu, unblocked vol	866	369	369			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	84	89	96			
cM capacity (veh/h)	513	676	1189			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	84	75	42	412	369	39
Volume Left	84	0	42	0	0	0
Volume Right	0	75	0	0	0	39
cSH	513	676	1189	1700	1700	1700
Volume to Capacity	0.16	0.11	0.04	0.24	0.22	0.02
Queue Length 95th (ft)	14	9	3	0	0	0
Control Delay (s)	13.4	11.0	8.1	0.0	0.0	0.0
Lane LOS	B	B	A			
Approach Delay (s)	12.2		0.8		0.0	
Approach LOS	B					

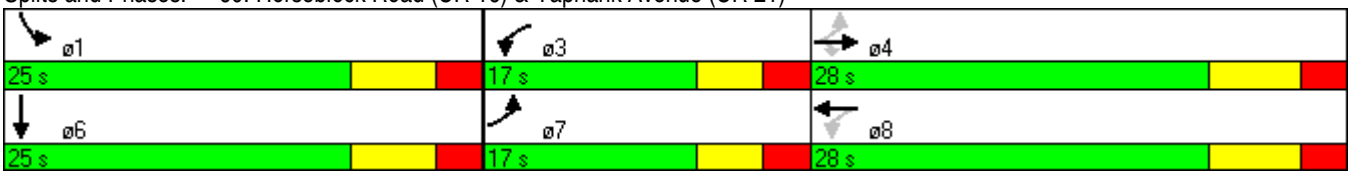
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	112	793	48	41	640	186	78
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	25.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	44.4	37.9	37.9	41.0	34.1	16.4	16.4
Actuated g/C Ratio	0.63	0.54	0.54	0.59	0.49	0.23	0.23
v/c Ratio	0.27	0.50	0.06	0.12	0.41	0.52	0.20
Control Delay	7.4	14.0	4.9	6.5	14.6	27.5	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	14.0	4.9	6.5	14.6	27.5	21.2
LOS	A	B	A	A	B	C	C
Approach Delay		12.8			14.1		25.6
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	953	645	0	0	95
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.93	0.93
Hourly flow rate (vph)	0	1108	717	0	0	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	717				994	358
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	369				688	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	1029				330	941

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	277	277	277	277	358	358	102
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	102
cSH	1700	1700	1700	1700	1700	1700	941
Volume to Capacity	0.16	0.16	0.16	0.16	0.21	0.21	0.11
Queue Length 95th (ft)	0	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS							A
Approach Delay (s)	0.0				0.0		9.3
Approach LOS							A

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	58	447	495	172	231	696
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.87	0.87	0.91	0.91
Hourly flow rate (vph)	68	526	569	198	254	765
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1558	383			569	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1558	383			569	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	11	14			75	
cM capacity (veh/h)	77	615			999	

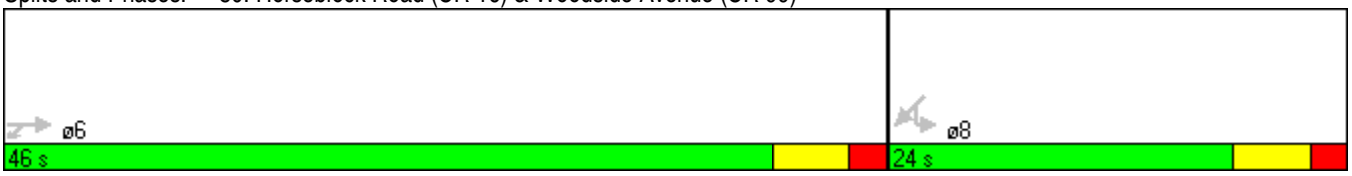
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	68	526	379	387	254	382	382
Volume Left	68	0	0	0	254	0	0
Volume Right	0	526	0	198	0	0	0
cSH	77	615	1700	1700	999	1700	1700
Volume to Capacity	0.89	0.86	0.22	0.23	0.25	0.22	0.22
Queue Length 95th (ft)	113	239	0	0	25	0	0
Control Delay (s)	165.0	35.9	0.0	0.0	9.8	0.0	0.0
Lane LOS	F	E			A		
Approach Delay (s)	50.7		0.0		2.4		
Approach LOS	F						

Intersection Summary			
Average Delay	13.7		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	568	18	208
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	50.1	50.1	11.9
Actuated g/C Ratio	0.72	0.72	0.17
v/c Ratio	0.25	0.02	0.40
Control Delay	2.0	0.6	32.3
Queue Delay	0.0	0.0	0.0
Total Delay	2.0	0.6	32.3
LOS	A	A	C
Approach Delay	2.0		32.3
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 28.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	22	554	163	114	644	41	144	0	89	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	22.0	22.0	22.0	22.0
Total Split (%)	68.6%	68.6%	68.6%	68.6%	68.6%	68.6%	31.4%	31.4%	31.4%	31.4%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	44.0	44.0	44.0	44.0	44.0	44.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.26	0.26	0.26	0.26
v/c Ratio	0.07	0.26	0.16	0.25	0.59	0.04	0.47	0.28	0.35	0.09
Control Delay	3.3	3.6	0.4	15.0	21.2	6.2	27.3	1.1	25.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	3.6	0.4	15.0	21.2	6.2	27.3	1.1	25.7	0.3
LOS	A	A	A	B	C	A	C	A	C	A
Approach Delay		2.9			19.5			13.4		16.8
Approach LOS		A			B			B		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 65.5% ICU Level of Service C
Analysis Period (min) 15

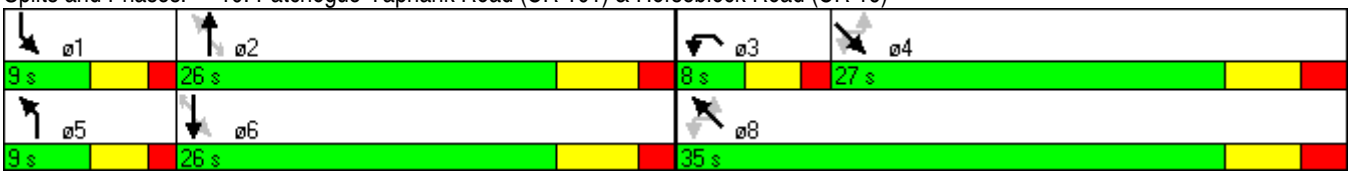
Splits and Phases: 9: Horseblock Road (CR 16) &

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	42	596	64	60	584	55	72	561	33	97	590	61
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	28.6	25.6	25.6	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.41	0.37	0.37	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.15	0.52	0.12	0.22	0.51	0.10	0.57	1.02	0.06	0.48	0.73	0.08
Control Delay	12.5	20.2	5.6	13.3	20.0	5.8	22.4	49.6	1.5	16.0	17.2	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	20.2	5.6	13.3	20.0	5.8	22.4	49.6	1.5	16.0	17.2	2.6
LOS	B	C	A	B	B	A	C	D	A	B	B	A
Approach Delay		18.4			18.3			44.2			15.8	
Approach LOS		B			B			D			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 24.1 Intersection LOS: C
Intersection Capacity Utilization 72.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

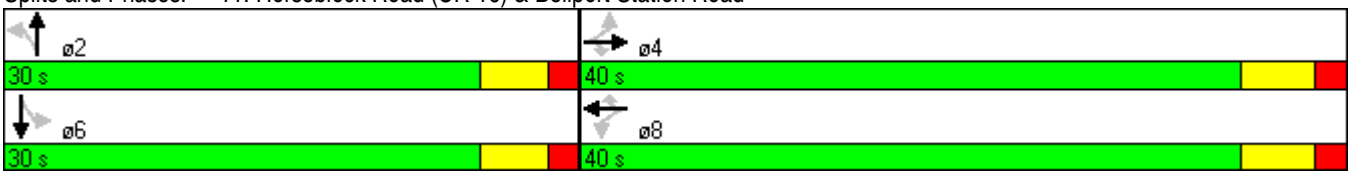


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	28	598	393	6	656	55	308	170	47	120
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.87	0.45		0.78	0.08		1.07		0.38
Control Delay		29.1	4.4		22.8	10.5		87.0		16.5
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		29.1	4.4		22.8	10.5		87.0		16.5
LOS		C	A		C	B		F		B
Approach Delay		19.6			21.9			87.0		16.5
Approach LOS		B			C			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 102.9% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

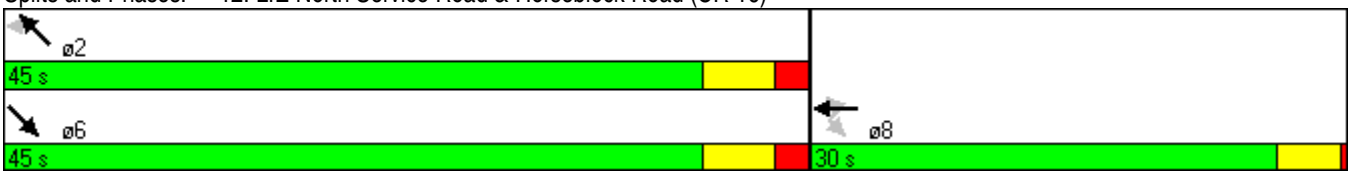


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	353	269	879	508	772
Turn Type		Perm		Perm	
Protected Phases	8		6		2
Permitted Phases		8		2	
Detector Phase	8	8	6	2	2
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	22.0	22.0
Total Split (s)	30.0	30.0	45.0	45.0	45.0
Total Split (%)	40.0%	40.0%	60.0%	60.0%	60.0%
Yellow Time (s)	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	50.0	50.0	50.0
Actuated g/C Ratio	0.23	0.23	0.67	0.67	0.67
v/c Ratio	0.60	0.64	0.38	1.70	0.65
Control Delay	28.4	18.4	6.6	335.0	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	18.4	6.6	335.0	6.6
LOS	C	B	A	F	A
Approach Delay	24.7		6.6		136.9
Approach LOS	C		A		F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.70
Intersection Signal Delay: 67.1 Intersection LOS: E
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

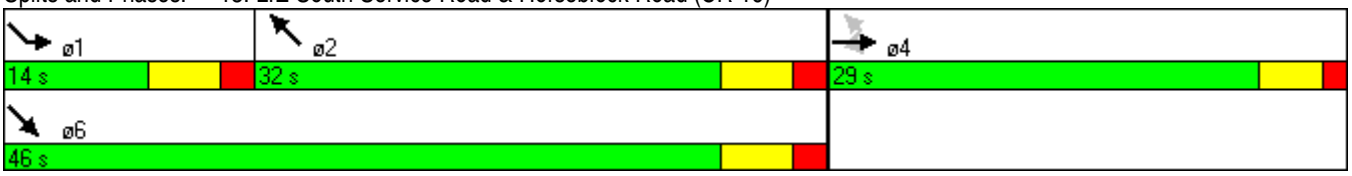


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	133	93	438	285	654	1115
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.6	20.6	20.6	11.2	46.4	31.2
Actuated g/C Ratio	0.27	0.27	0.27	0.15	0.62	0.42
v/c Ratio	0.26	0.19	0.86	0.65	0.35	1.54
Control Delay	20.9	19.8	30.5	43.4	6.6	272.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	19.8	30.5	43.4	6.6	272.7
LOS	C	B	C	D	A	F
Approach Delay		27.1			17.8	272.7
Approach LOS		C			B	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.54
Intersection Signal Delay: 124.3 Intersection LOS: F
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



APPENDIX G: MITIGATED NO BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

Intersections

1. Yaphank Avenue (CR 21) at LIE North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road

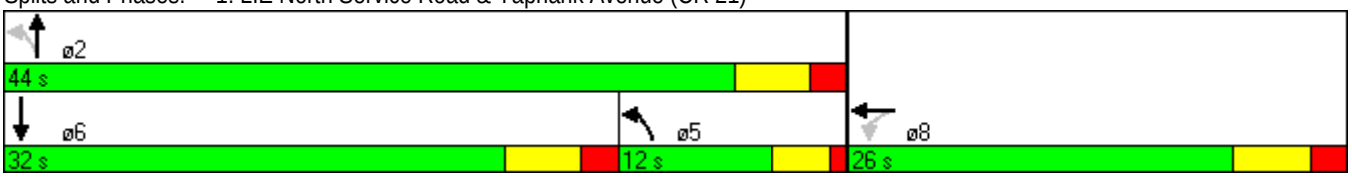
MITIGATED NO BUILD AM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	2	418	151	275
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	3.0	12.0	12.0
Minimum Split (s)	22.0	7.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	20.2	41.8	41.8	29.8
Actuated g/C Ratio	0.29	0.60	0.60	0.43
v/c Ratio	1.15dl	0.84	0.18	0.28
Control Delay	26.0	23.5	1.4	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.0	23.5	1.4	10.9
LOS	C	C	A	B
Approach Delay	26.0		17.6	10.9
Approach LOS	C		B	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

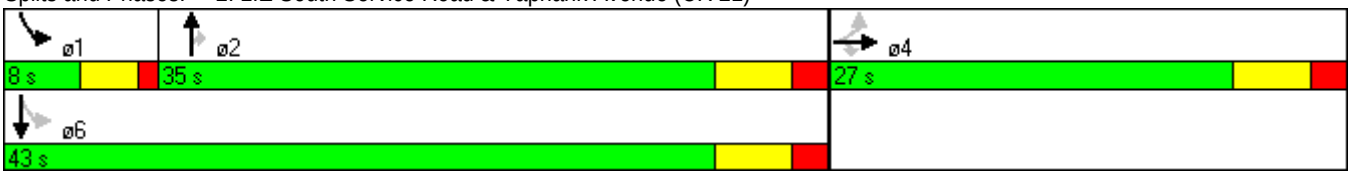


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	471	551	367	59	719
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	3.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	7.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	22.2	22.2	33.4	33.4	39.8	39.8
Actuated g/C Ratio	0.32	0.32	0.48	0.48	0.57	0.57
v/c Ratio	0.06	0.92	0.70	0.44	0.24	0.43
Control Delay	16.5	40.3	21.1	3.2	3.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	40.3	21.1	3.2	3.9	3.6
LOS	B	D	C	A	A	A
Approach Delay	39.0		13.9			3.6
Approach LOS	D		B			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 60.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	13	15	0	25	36	985	83	113	975	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.97	0.97	0.97	0.93	0.93	0.93
Hourly flow rate (vph)	2	0	15	18	0	29	37	1015	86	122	1048	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	2411	2467	524	1872	2413	1015	1081			1101		
vC1, stage 1 conf vol	1291	1291		1090	1090							
vC2, stage 2 conf vol	1119	1175		782	1324							
vCu, unblocked vol	2383	2442	409	1820	2386	1015	991			1101		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	97	89	100	88	94			81		
cM capacity (veh/h)	55	105	566	167	129	236	662			630		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	18	47	25	1028	86	122	524	524	32
Volume Left	2	18	25	12	0	122	0	0	0
Volume Right	15	29	0	0	86	0	0	0	32
cSH	253	204	662	662	1700	630	1700	1700	1700
Volume to Capacity	0.07	0.23	0.06	0.06	0.05	0.19	0.31	0.31	0.02
Queue Length 95th (ft)	6	22	4	4	0	18	0	0	0
Control Delay (s)	20.3	27.8	10.8	1.6	0.0	12.1	0.0	0.0	0.0
Lane LOS	C	D	B	A		B			
Approach Delay (s)	20.3	27.8	1.7			1.2			
Approach LOS	C	D							

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	112	929	15	33	704
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.88	0.88	0.85	0.85
Hourly flow rate (vph)	26	132	1056	17	39	828
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1962	1056			1073	
vC1, stage 1 conf vol	1056					
vC2, stage 2 conf vol	906					
vCu, unblocked vol	1962	1056			1073	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	52			94	
cM capacity (veh/h)	250	274			650	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	158	1056	17	39	828
Volume Left	26	0	0	39	0
Volume Right	132	0	17	0	0
cSH	270	1700	1700	650	1700
Volume to Capacity	0.58	0.62	0.01	0.06	0.49
Queue Length 95th (ft)	85	0	0	5	0
Control Delay (s)	35.6	0.0	0.0	10.9	0.0
Lane LOS	E			B	
Approach Delay (s)	35.6	0.0		0.5	
Approach LOS	E				

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	56	33	129	888	661	65
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	65	38	147	1009	743	73
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2045	743	743			
vC1, stage 1 conf vol	743					
vC2, stage 2 conf vol	1302					
vCu, unblocked vol	2045	743	743			
tC, single (s)	6.6	6.4	4.2			
tC, 2 stage (s)	5.6					
tF (s)	3.7	3.5	2.3			
p0 queue free %	63	90	82			
cM capacity (veh/h)	176	390	821			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	65	38	147	1009	743	73
Volume Left	65	0	147	0	0	0
Volume Right	0	38	0	0	0	73
cSH	176	390	821	1700	1700	1700
Volume to Capacity	0.37	0.10	0.18	0.59	0.44	0.04
Queue Length 95th (ft)	40	8	16	0	0	0
Control Delay (s)	37.1	15.2	10.3	0.0	0.0	0.0
Lane LOS	E	C	B			
Approach Delay (s)	29.0		1.3		0.0	
Approach LOS	D					

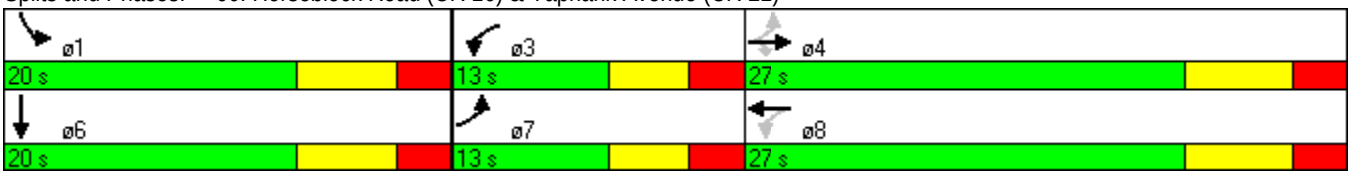
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	130	397	32	41	1041	193	105
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	1.0	1.0	3.0	1.0	4.0	8.0
Minimum Split (s)	10.0	8.3	8.3	10.0	8.3	11.0	15.0
Total Split (s)	13.0	27.0	27.0	13.0	27.0	20.0	20.0
Total Split (%)	21.7%	45.0%	45.0%	21.7%	45.0%	33.3%	33.3%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	35.8	32.2	32.2	33.7	27.0	14.7	14.7
Actuated g/C Ratio	0.60	0.54	0.54	0.56	0.45	0.24	0.24
v/c Ratio	0.41	0.24	0.04	0.08	0.69	0.56	0.28
Control Delay	10.4	9.8	4.9	5.4	18.0	25.4	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	9.8	4.9	5.4	18.0	25.4	19.7
LOS	B	A	A	A	B	C	B
Approach Delay		9.7			17.5		23.4
Approach LOS		A			B		C

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 56.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	559	1041	0	0	351
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	0	628	1096	0	0	413
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.74				0.74	0.74
vC, conflicting volume	1096				1253	548
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	428				640	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	49
cM capacity (veh/h)	835				302	803

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	157	157	157	157	548	548	413
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	413
cSH	1700	1700	1700	1700	1700	1700	803
Volume to Capacity	0.09	0.09	0.09	0.09	0.32	0.32	0.51
Queue Length 95th (ft)	0	0	0	0	0	0	75
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	14.1
Lane LOS							B
Approach Delay (s)	0.0				0.0		14.1
Approach LOS							B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	44	930	1083	67	520
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	23.3	8.0	23.3
Total Split (s)	26.0	26.0	26.0	8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	13.3%	56.7%
Yellow Time (s)	3.5	3.5	4.8	3.5	4.8
All-Red Time (s)	0.5	0.5	2.5	0.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	7.3	4.0	7.3
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.0	22.0	21.9	30.0	26.7
Actuated g/C Ratio	0.37	0.37	0.36	0.50	0.44
v/c Ratio	0.08	1.51	1.00	0.31	0.39
Control Delay	12.9	255.3	49.6	11.6	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	255.3	49.6	11.6	12.2
LOS	B	F	D	B	B
Approach Delay	244.4		49.6		12.1
Approach LOS	F		D		B

Intersection Summary

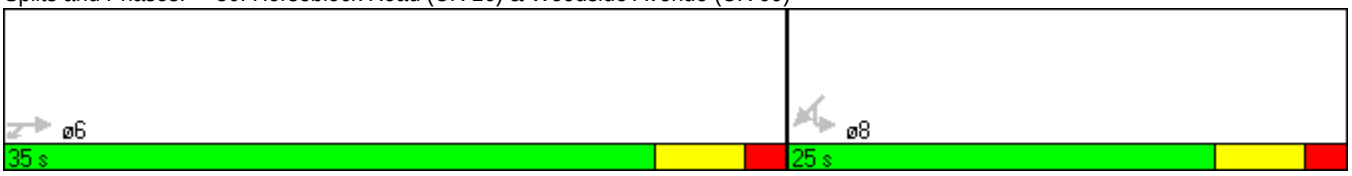
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.51
Intersection Signal Delay: 112.5 Intersection LOS: F
Intersection Capacity Utilization 99.0% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	443	19	196
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	35.0	35.0	25.0
Total Split (%)	58.3%	58.3%	41.7%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	40.7	40.7	11.3
Actuated g/C Ratio	0.68	0.68	0.19
v/c Ratio	0.21	0.02	0.39
Control Delay	4.2	2.0	20.0
Queue Delay	0.0	0.0	0.0
Total Delay	4.2	2.0	20.0
LOS	A	A	B
Approach Delay	4.1		20.0
Approach LOS	A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 9.3	Intersection LOS: A
Intersection Capacity Utilization 25.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

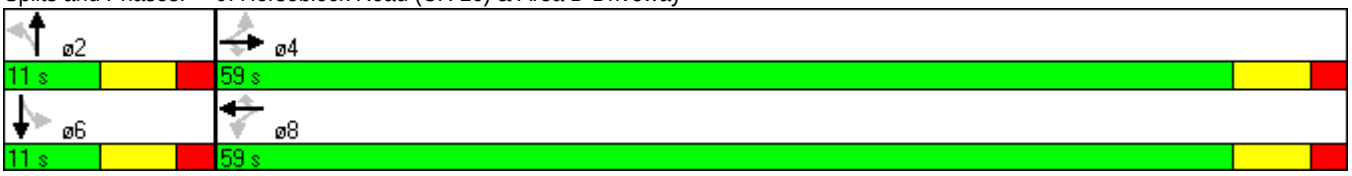


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	137	491	51	44	1094	253	44	0	41	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	10.0	7.0	7.0
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	11.0	11.0	11.0	11.0
Total Split (%)	84.3%	84.3%	84.3%	84.3%	84.3%	84.3%	15.7%	15.7%	15.7%	15.7%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	7.0	7.0	7.0	7.0
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10
v/c Ratio	0.67	0.20	0.05	0.07	0.79	0.21	0.37	0.08	0.33	0.08
Control Delay	22.2	2.1	0.6	2.0	9.3	0.6	37.7	0.3	36.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	2.1	0.6	2.0	9.3	0.6	37.7	0.3	36.5	0.5
LOS	C	A	A	A	A	A	D	A	D	A
Approach Delay		6.0			7.5			20.6		23.6
Approach LOS		A			A			C		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 8.0 Intersection LOS: A
Intersection Capacity Utilization 84.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Driveway

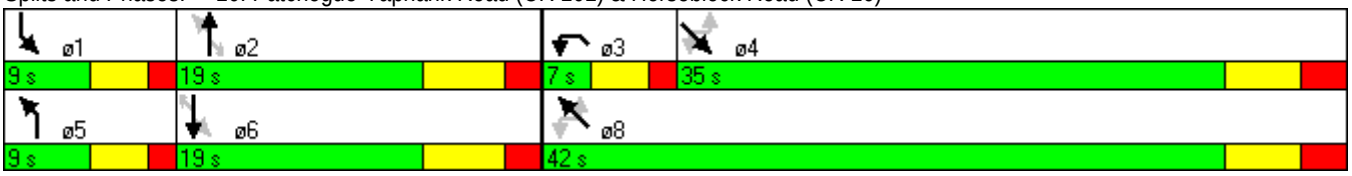


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	28	638	133	98	667	64	74	668	13	78	512	87
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	16.2	16.2	8.5	16.2	16.2	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	19.0	19.0	9.0	19.0	19.0	35.0	35.0	35.0	7.0	42.0	42.0
Total Split (%)	12.9%	27.1%	27.1%	12.9%	27.1%	27.1%	50.0%	50.0%	50.0%	10.0%	60.0%	60.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.8	16.8	16.8	22.4	20.4	20.4	32.4	32.4	32.4	38.0	38.0	38.0
Actuated g/C Ratio	0.30	0.24	0.24	0.32	0.29	0.29	0.46	0.46	0.46	0.54	0.54	0.54
v/c Ratio	0.15	0.92	0.33	0.52	0.78	0.15	0.35	1.06	0.02	0.55	0.66	0.12
Control Delay	17.3	46.6	6.7	26.3	32.6	7.4	10.6	61.5	2.2	22.6	15.6	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	46.6	6.7	26.3	32.6	7.4	10.6	61.5	2.2	22.6	15.6	2.3
LOS	B	D	A	C	C	A	B	E	A	C	B	A
Approach Delay		39.0			29.9			55.5			14.7	
Approach LOS		D			C			E			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 35.2 Intersection LOS: D
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

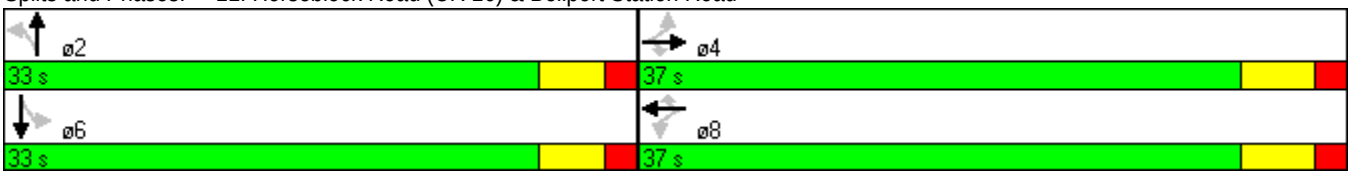


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	14	582	195	2	526	51	243	115	89	188
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	33.0	33.0	33.0	33.0
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	47.1%	47.1%	47.1%	47.1%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		34.1	34.1		34.1	34.1		27.9		27.9
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.40		0.40
v/c Ratio		0.87	0.29		0.73	0.08		0.92		0.53
Control Delay		31.1	5.3		27.2	13.4		49.1		18.7
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		31.1	5.3		27.2	13.4		49.1		18.7
LOS		C	A		C	B		D		B
Approach Delay		24.8			26.0			49.1		18.7
Approach LOS		C			C			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 87.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

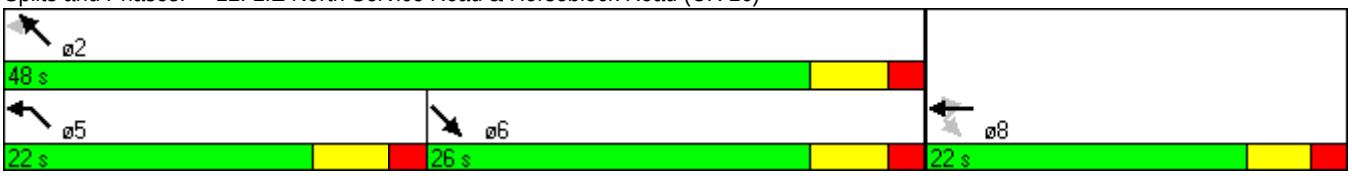


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	404	124	618	513	492
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	1.0	4.0	20.0
Minimum Split (s)	21.3	21.3	26.0	10.0	26.0
Total Split (s)	22.0	22.0	26.0	22.0	48.0
Total Split (%)	31.4%	31.4%	37.1%	31.4%	68.6%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.7	17.7	22.0	44.3	44.3
Actuated g/C Ratio	0.25	0.25	0.31	0.63	0.63
v/c Ratio	0.83	0.29	0.69	1.03	0.48
Control Delay	33.9	5.9	24.0	59.1	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	5.9	24.0	59.1	14.1
LOS	C	A	C	E	B
Approach Delay	29.5		24.0		37.1
Approach LOS	C		C		D

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 30.9 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

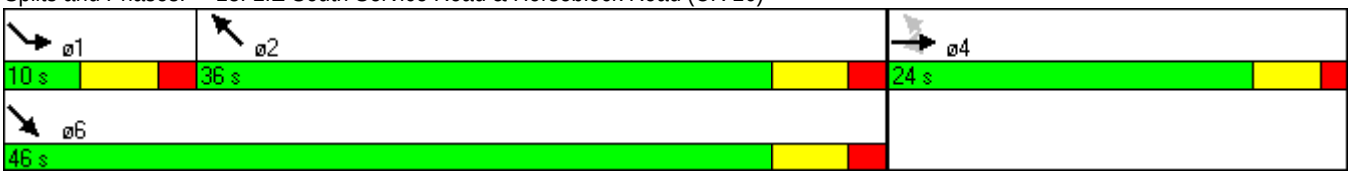


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	99	72	662	269	451	867
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	20.0	20.0	6.0	42.0	32.0
Actuated g/C Ratio	0.29	0.29	0.29	0.09	0.60	0.46
v/c Ratio	0.20	0.15	1.16	1.11	0.26	1.09
Control Delay	20.2	19.7	106.1	114.4	5.7	77.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	19.7	106.1	114.4	5.7	77.9
LOS	C	B	F	F	A	E
Approach Delay		88.4			46.3	77.9
Approach LOS		F			D	E

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 72.0 Intersection LOS: E
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



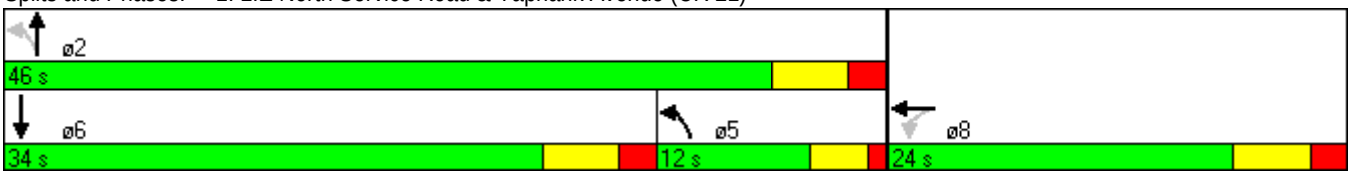
MITIGATED NO BUILD MIDDAY PEAK HOUR LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	0	336	271	199
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	12.3	49.7	49.7	37.7
Actuated g/C Ratio	0.18	0.71	0.71	0.54
v/c Ratio	0.46	0.49	0.27	0.15
Control Delay	22.0	4.2	1.3	7.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.0	4.2	1.3	7.0
LOS	C	A	A	A
Approach Delay	22.0		2.9	7.0
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

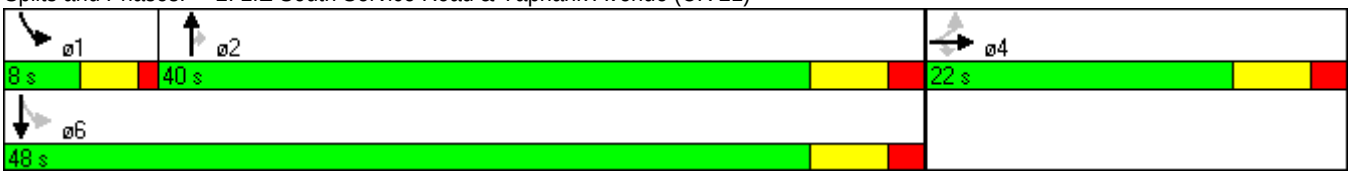


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	6	259	542	212	73	320
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	10.9	10.9	42.8	42.8	51.1	51.1
Actuated g/C Ratio	0.16	0.16	0.61	0.61	0.73	0.73
v/c Ratio	0.24	0.58	0.53	0.23	0.15	0.13
Control Delay	27.1	9.1	11.5	2.0	2.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	9.1	11.5	2.0	2.3	1.7
LOS	C	A	B	A	A	A
Approach Delay	12.6		8.8			1.8
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 7.8 Intersection LOS: A
Intersection Capacity Utilization 48.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	0	42	19	2	47	15	510	32	45	546	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.88	0.88	0.88	0.92	0.92	0.92
Hourly flow rate (vph)	44	0	49	22	2	55	17	580	36	49	593	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1361	1341	297	1058	1329	580	617			616		
vC1, stage 1 conf vol	691	691		614	614							
vC2, stage 2 conf vol	670	650		444	715							
vCu, unblocked vol	1361	1341	297	1058	1329	580	617			616		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	100	93	94	99	88	98			95		
cM capacity (veh/h)	247	315	700	349	324	458	959			960		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	93	80	17	580	36	49	297	297	24
Volume Left	44	22	17	0	0	49	0	0	0
Volume Right	49	55	0	0	36	0	0	0	24
cSH	377	416	959	1700	1700	960	1700	1700	1700
Volume to Capacity	0.25	0.19	0.02	0.34	0.02	0.05	0.17	0.17	0.01
Queue Length 95th (ft)	24	18	1	0	0	4	0	0	0
Control Delay (s)	17.7	15.7	8.8	0.0	0.0	9.0	0.0	0.0	0.0
Lane LOS	C	C	A			A			
Approach Delay (s)	17.7	15.7	0.2			0.7			
Approach LOS	C	C							

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	52	549	13	45	393
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	15	61	584	14	51	442
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1127	584			598	
vC1, stage 1 conf vol	584					
vC2, stage 2 conf vol	543					
vCu, unblocked vol	1127	584			598	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	88			95	
cM capacity (veh/h)	431	511			979	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	76	584	14	51	442
Volume Left	15	0	0	51	0
Volume Right	61	0	14	0	0
cSH	493	1700	1700	979	1700
Volume to Capacity	0.16	0.34	0.01	0.05	0.26
Queue Length 95th (ft)	14	0	0	4	0
Control Delay (s)	13.6	0.0	0.0	8.9	0.0
Lane LOS	B			A	
Approach Delay (s)	13.6	0.0		0.9	
Approach LOS	B				

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	46.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	114	78	76	453	326	60
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	134	92	89	533	384	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1095	384	384			
vC1, stage 1 conf vol	384					
vC2, stage 2 conf vol	712					
vCu, unblocked vol	1095	384	384			
tC, single (s)	6.5	6.3	4.3			
tC, 2 stage (s)	5.5					
tF (s)	3.6	3.4	2.3			
p0 queue free %	65	86	92			
cM capacity (veh/h)	388	638	1102			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	134	92	89	533	384	71
Volume Left	134	0	89	0	0	0
Volume Right	0	92	0	0	0	71
cSH	388	638	1102	1700	1700	1700
Volume to Capacity	0.35	0.14	0.08	0.31	0.23	0.04
Queue Length 95th (ft)	38	13	7	0	0	0
Control Delay (s)	19.1	11.6	8.6	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	16.1		1.2		0.0	
Approach LOS	C					

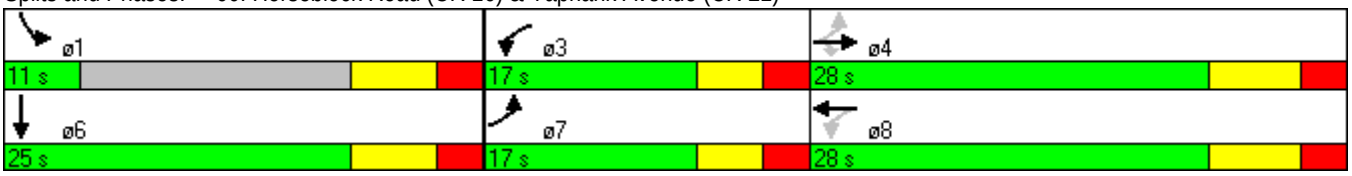
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	133	555	36	79	983	220	100
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	11.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	15.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	42.0	33.2	33.2	39.6	32.0	18.0	18.0
Actuated g/C Ratio	0.60	0.47	0.47	0.57	0.46	0.26	0.26
v/c Ratio	0.42	0.40	0.05	0.18	0.66	0.62	0.55
Control Delay	14.4	14.8	5.8	7.3	20.6	29.9	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	14.8	5.8	7.3	20.6	29.9	17.9
LOS	B	B	A	A	C	C	B
Approach Delay		14.3			19.6		23.8
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 18.7 Intersection LOS: B
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	724	986	0	0	131
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.91	0.91
Hourly flow rate (vph)	0	770	1006	0	0	144
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.77				0.77	0.77
vC, conflicting volume	1006				1199	503
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	398				649	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	83
cM capacity (veh/h)	887				308	831

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	193	193	193	193	503	503	144
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	144
cSH	1700	1700	1700	1700	1700	1700	831
Volume to Capacity	0.11	0.11	0.11	0.11	0.30	0.30	0.17
Queue Length 95th (ft)	0	0	0	0	0	0	16
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS							B
Approach Delay (s)	0.0				0.0		10.2
Approach LOS							B

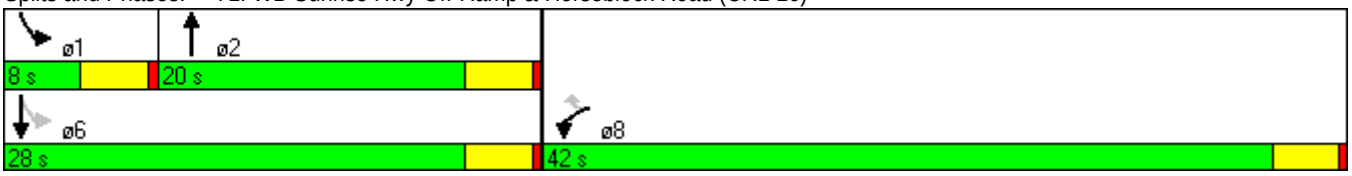
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	143	861	530	139	646
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	42.0	42.0	20.0	8.0	28.0
Total Split (%)	60.0%	60.0%	28.6%	11.4%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	38.0	38.0	16.0	24.0	24.0
Actuated g/C Ratio	0.54	0.54	0.23	0.34	0.34
v/c Ratio	0.17	1.03	0.83	0.77	0.61
Control Delay	8.7	51.7	36.6	46.7	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.7	51.7	36.6	46.7	21.9
LOS	A	D	D	D	C
Approach Delay	45.6		36.6		26.3
Approach LOS	D		D		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 36.9 Intersection LOS: D
Intersection Capacity Utilization 76.9% ICU Level of Service D
Analysis Period (min) 15

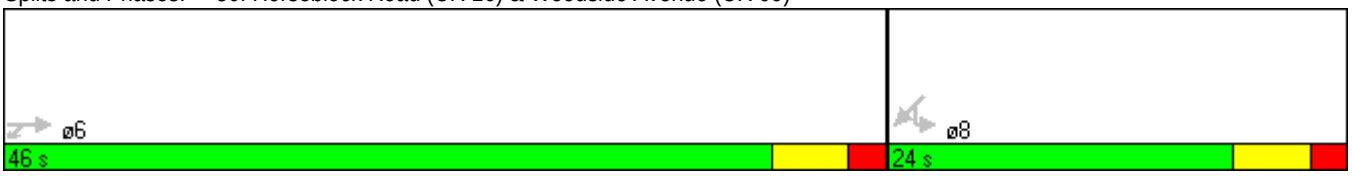
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	516	21	447
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	45.4	45.4	16.6
Actuated g/C Ratio	0.65	0.65	0.24
v/c Ratio	0.26	0.02	0.58
Control Delay	3.7	1.2	30.7
Queue Delay	0.0	0.0	0.0
Total Delay	3.7	1.2	30.7
LOS	A	A	C
Approach Delay	3.6		30.7
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 33.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

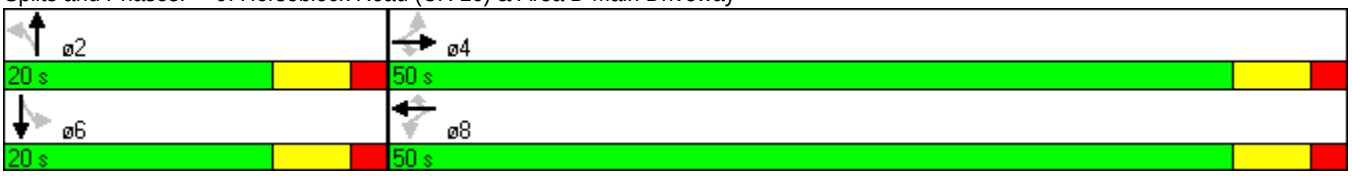


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	22	630	82	75	639	41	72	0	89	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	7.0	7.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	20.0	20.0	20.0	20.0
Total Split (%)	71.4%	71.4%	71.4%	71.4%	71.4%	71.4%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	46.0	46.0	46.0	46.0	46.0	46.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23
v/c Ratio	0.07	0.29	0.08	0.19	0.57	0.04	0.28	0.18	0.33	0.09
Control Delay	2.8	3.0	0.3	9.5	16.3	3.4	25.2	0.7	26.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.8	3.0	0.3	9.5	16.3	3.4	25.2	0.7	26.3	0.3
LOS	A	A	A	A	B	A	C	A	C	A
Approach Delay		2.7			14.9			11.5		17.3
Approach LOS		A			B			B		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 9.8 Intersection LOS: A
Intersection Capacity Utilization 58.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

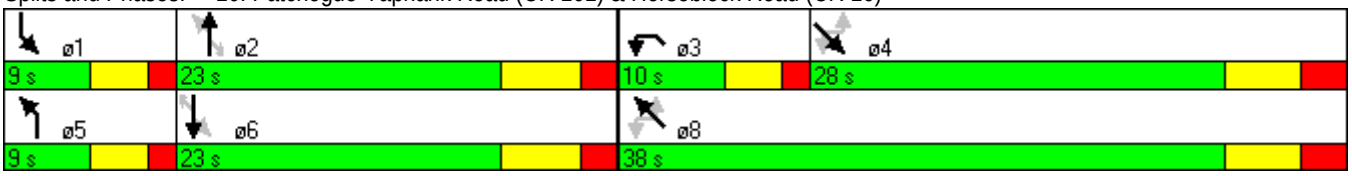


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	30	569	90	53	536	70	38	498	90	179	460	67
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.0	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	28.0	28.0	28.0	10.0	38.0	38.0
Total Split (%)	12.9%	32.9%	32.9%	12.9%	32.9%	32.9%	40.0%	40.0%	40.0%	14.3%	54.3%	54.3%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.6	22.6	22.6	26.4	24.4	24.4	24.0	24.0	24.0	34.0	34.0	34.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.35	0.35	0.34	0.34	0.34	0.49	0.49	0.49
v/c Ratio	0.10	0.54	0.18	0.20	0.49	0.13	0.19	1.01	0.18	0.89	0.66	0.11
Control Delay	13.8	22.8	6.0	15.0	20.8	6.3	7.8	48.5	1.5	54.3	15.2	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	22.8	6.0	15.0	20.8	6.3	7.8	48.5	1.5	54.3	15.2	2.3
LOS	B	C	A	B	C	A	A	D	A	D	B	A
Approach Delay		20.2			18.8			39.3			23.9	
Approach LOS		C			B			D			C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 68.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

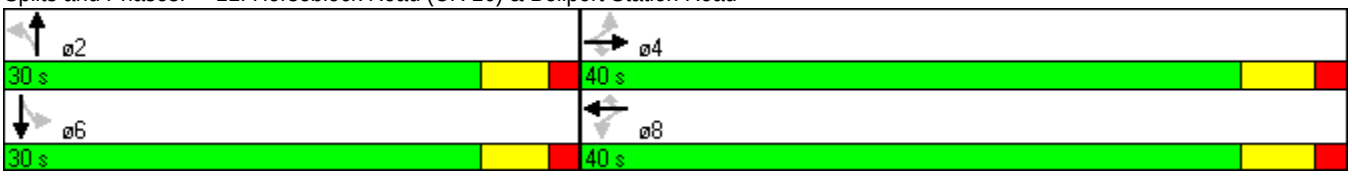


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	18	576	297	11	638	32	346	160	55	121
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.86	0.38		0.93	0.06		1.26		0.36
Control Delay		32.4	6.6		36.2	8.9		158.3		17.3
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		32.4	6.6		36.2	8.9		158.3		17.3
LOS		C	A		D	A		F		B
Approach Delay		23.8			34.9			158.3		17.3
Approach LOS		C			C			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 57.8 Intersection LOS: E
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

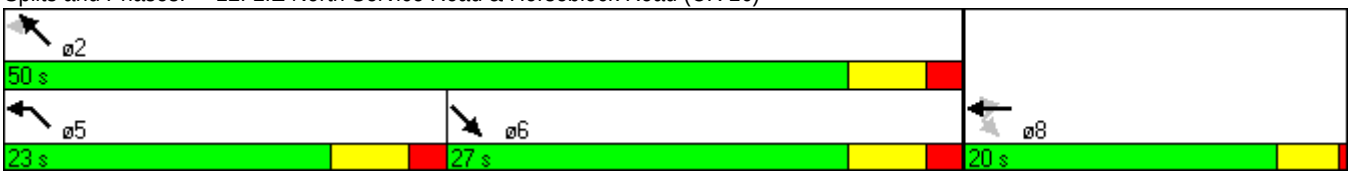


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	257	118	839	500	677
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	10.0	22.0
Total Split (s)	20.0	20.0	27.0	23.0	50.0
Total Split (%)	28.6%	28.6%	38.6%	32.9%	71.4%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.7	14.7	24.3	47.3	47.3
Actuated g/C Ratio	0.21	0.21	0.35	0.68	0.68
v/c Ratio	0.73	0.32	0.73	0.92	0.58
Control Delay	31.8	6.9	24.2	27.7	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	6.9	24.2	27.7	13.1
LOS	C	A	C	C	B
Approach Delay	26.9		24.2		19.3
Approach LOS	C		C		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 22.8 Intersection LOS: C
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

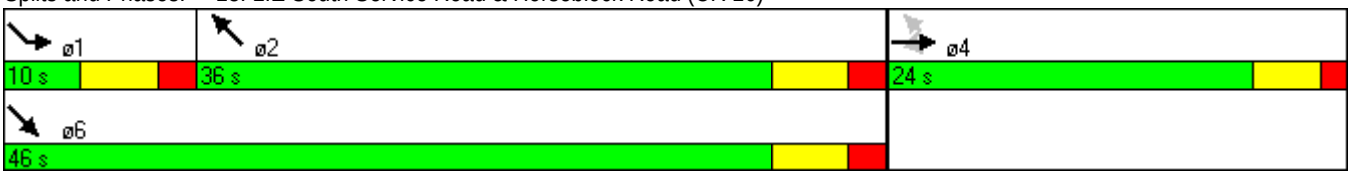


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	137	99	460	308	663	932
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.1	18.1	18.1	7.9	43.9	32.0
Actuated g/C Ratio	0.26	0.26	0.26	0.11	0.63	0.46
v/c Ratio	0.28	0.21	0.90	0.89	0.34	1.25
Control Delay	21.5	20.6	35.1	60.6	5.1	139.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	20.6	35.1	60.6	5.1	139.8
LOS	C	C	D	E	A	F
Approach Delay		30.4			22.7	139.8
Approach LOS		C			C	F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 68.9 Intersection LOS: E
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



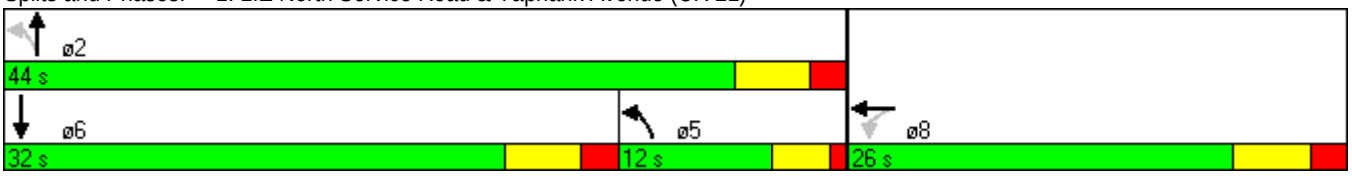
MITIGATED NO BUILD PM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	7	402	319	227
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	15.6	46.4	46.4	34.4
Actuated g/C Ratio	0.22	0.66	0.66	0.49
v/c Ratio	0.57	0.60	0.33	0.16
Control Delay	22.9	4.6	1.1	9.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.9	4.6	1.1	9.5
LOS	C	A	A	A
Approach Delay	22.9		3.1	9.5
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 9.7 Intersection LOS: A
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

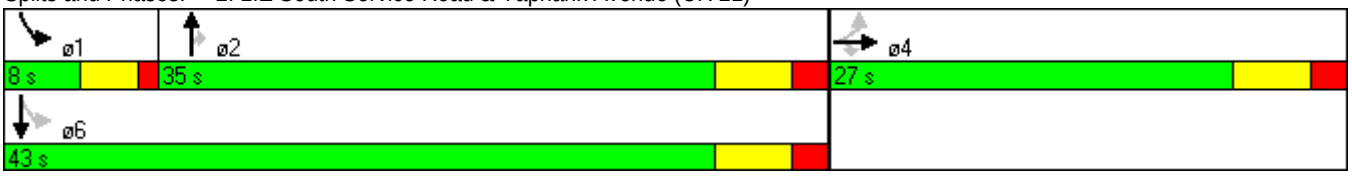


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	2	548	666	462	91	488
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.5	21.5	34.1	34.1	40.5	40.5
Actuated g/C Ratio	0.31	0.31	0.49	0.49	0.58	0.58
v/c Ratio	0.19	0.92	0.89	0.54	0.46	0.26
Control Delay	18.0	32.6	34.0	3.6	13.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	32.6	34.0	3.6	13.2	4.0
LOS	B	C	C	A	B	A
Approach Delay	30.6		21.6			5.4
Approach LOS	C		C			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 20.4 Intersection LOS: C
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	0	28	22	0	47	14	979	18	13	1096	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.59	0.59	0.59	0.43	0.43	0.43	0.91	0.91	0.91	0.97	0.97	0.97
Hourly flow rate (vph)	31	0	47	51	0	109	15	1076	20	13	1130	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.99	0.99	0.99	0.99	0.99		0.99					
vC, conflicting volume	2373	2283	565	1746	2271	1076	1137			1096		
vC1, stage 1 conf vol	1157	1157		1107	1107							
vC2, stage 2 conf vol	1216	1126		639	1164							
vCu, unblocked vol	2363	2272	528	1727	2260	1076	1109			1096		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	57	100	90	73	100	49	98			98		
cM capacity (veh/h)	71	183	487	189	183	215	616			633		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	78	160	15	1076	20	13	565	565	7
Volume Left	31	51	15	0	0	13	0	0	0
Volume Right	47	109	0	0	20	0	0	0	7
cSH	148	206	616	1700	1700	633	1700	1700	1700
Volume to Capacity	0.53	0.78	0.02	0.63	0.01	0.02	0.33	0.33	0.00
Queue Length 95th (ft)	64	136	2	0	0	2	0	0	0
Control Delay (s)	53.6	65.6	11.0	0.0	0.0	10.8	0.0	0.0	0.0
Lane LOS	F	F	B			B			
Approach Delay (s)	53.6	65.6	0.2			0.1			
Approach LOS	F	F							

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	34	894	14	99	748
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	7	41	972	15	105	796
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1978	972			987	
vC1, stage 1 conf vol	972					
vC2, stage 2 conf vol	1006					
vCu, unblocked vol	1978	972			987	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	87			85	
cM capacity (veh/h)	232	306			700	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	972	15	105	796
Volume Left	7	0	0	105	0
Volume Right	41	0	15	0	0
cSH	293	1700	1700	700	1700
Volume to Capacity	0.16	0.57	0.01	0.15	0.47
Queue Length 95th (ft)	14	0	0	13	0
Control Delay (s)	19.6	0.0	0.0	11.1	0.0
Lane LOS	C			B	
Approach Delay (s)	19.6	0.0		1.3	
Approach LOS	C				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	172	82	51	736	736	24
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	202	96	58	836	818	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1770	818	818			
vC1, stage 1 conf vol	818					
vC2, stage 2 conf vol	952					
vCu, unblocked vol	1770	818	818			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.3			
p0 queue free %	26	74	93			
cM capacity (veh/h)	274	373	781			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	202	96	58	836	818	27
Volume Left	202	0	58	0	0	0
Volume Right	0	96	0	0	0	27
cSH	274	373	781	1700	1700	1700
Volume to Capacity	0.74	0.26	0.07	0.49	0.48	0.02
Queue Length 95th (ft)	133	25	6	0	0	0
Control Delay (s)	47.8	18.0	10.0	0.0	0.0	0.0
Lane LOS	E	C	A			
Approach Delay (s)	38.1		0.6		0.0	
Approach LOS	E					

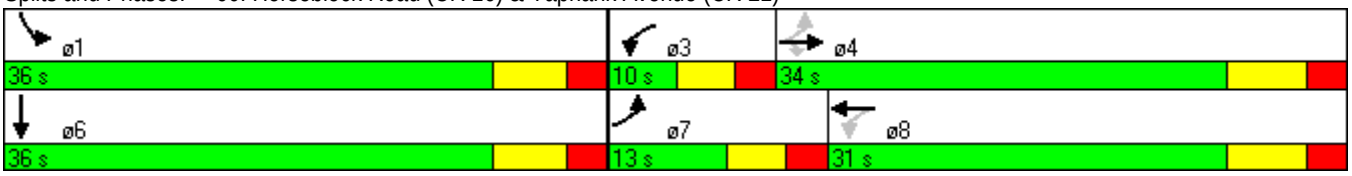
Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	243	1305	44	29	591	566	304
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	13.0	34.0	34.0	10.0	31.0	36.0	36.0
Total Split (%)	16.3%	42.5%	42.5%	12.5%	38.8%	45.0%	45.0%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	39.6	36.0	36.0	33.0	27.0	32.0	32.0
Actuated g/C Ratio	0.50	0.45	0.45	0.41	0.34	0.40	0.40
v/c Ratio	0.80	0.98	0.07	0.15	0.53	0.95	0.47
Control Delay	31.5	39.7	4.5	12.3	23.3	50.5	20.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	39.7	4.5	12.3	23.3	50.5	20.4
LOS	C	D	A	B	C	D	C
Approach Delay		37.4			22.8		40.0
Approach LOS		D			C		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 37 (46%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 35.4 Intersection LOS: D
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	1592	593	0	0	221
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1769	659	0	0	246
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.86				0.86	0.86
vC, conflicting volume	659				1101	329
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	273				788	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	74
cM capacity (veh/h)	1105				282	931

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	442	442	442	442	329	329	246
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	246
cSH	1700	1700	1700	1700	1700	1700	931
Volume to Capacity	0.26	0.26	0.26	0.26	0.19	0.19	0.26
Queue Length 95th (ft)	0	0	0	0	0	0	27
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS							B
Approach Delay (s)	0.0				0.0		10.2
Approach LOS							B

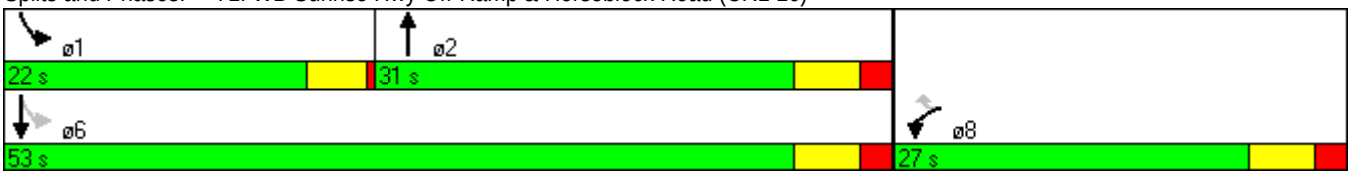
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	69	475	222	279	1488
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	8.0	22.0
Total Split (s)	27.0	27.0	31.0	22.0	53.0
Total Split (%)	33.8%	33.8%	38.8%	27.5%	66.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.0	2.0	2.0	0.5	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	4.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.0	11.0	40.7	59.0	57.0
Actuated g/C Ratio	0.14	0.14	0.51	0.74	0.71
v/c Ratio	0.31	0.78	0.47	0.59	0.66
Control Delay	32.1	12.0	5.5	9.5	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	12.0	5.5	9.5	9.0
LOS	C	B	A	A	A
Approach Delay	14.6		5.5		9.1
Approach LOS	B		A		A

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 9.1 Intersection LOS: A
Intersection Capacity Utilization 63.2% ICU Level of Service B
Analysis Period (min) 15

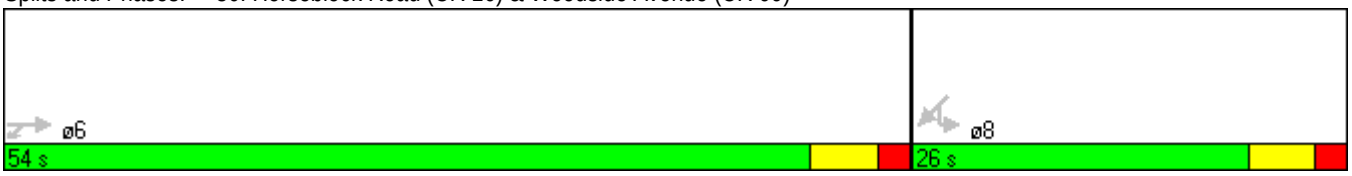
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	806	14	272
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	55.8	55.8	16.2
Actuated g/C Ratio	0.70	0.70	0.20
v/c Ratio	0.37	0.01	0.60
Control Delay	2.5	0.6	23.4
Queue Delay	0.0	0.0	0.0
Total Delay	2.5	0.6	23.4
LOS	A	A	C
Approach Delay	2.5		23.4
Approach LOS	A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 40.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

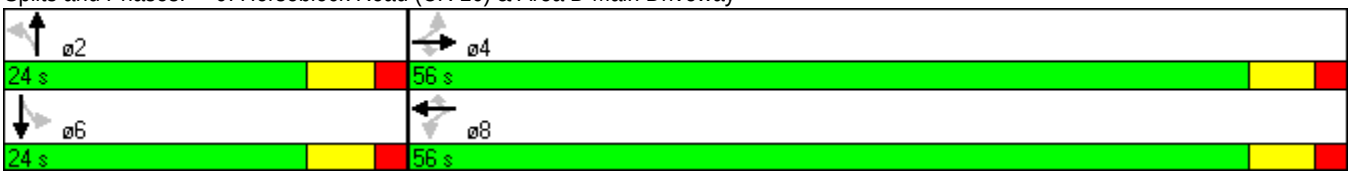


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	35	1197	3	3	674	65	21	0	244	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	56.0	56.0	56.0	56.0	56.0	56.0	24.0	24.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	52.0	52.0	52.0	52.0	52.0	52.0	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25
v/c Ratio	0.12	0.61	0.00	0.02	0.61	0.07	0.09	0.07	0.77	0.24
Control Delay	6.0	8.2	3.0	7.7	20.5	5.1	24.1	2.4	45.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	8.2	3.0	7.7	20.5	5.1	24.1	2.4	45.0	1.0
LOS	A	A	A	A	C	A	C	A	D	A
Approach Delay		8.1			19.1			12.4		29.6
Approach LOS		A			B			B		C

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 6 (8%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 14.7 Intersection LOS: B
Intersection Capacity Utilization 62.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

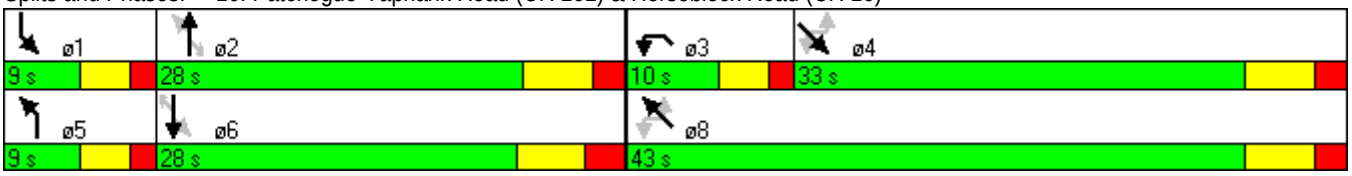


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	40	887	56	80	742	72	19	679	95	190	660	164
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	28.0	28.0	9.0	28.0	28.0	33.0	33.0	33.0	10.0	43.0	43.0
Total Split (%)	11.3%	35.0%	35.0%	11.3%	35.0%	35.0%	41.3%	41.3%	41.3%	12.5%	53.8%	53.8%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.0	4.0	4.2	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	1.5	2.0	2.0	1.5	2.5	2.5	2.0	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.5	-2.5	-2.2	-2.2	-2.2	-0.5	-2.2	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.8	25.8	25.8	30.6	27.6	27.6	29.0	29.0	29.0	39.0	39.0	39.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.34	0.34	0.36	0.36	0.36	0.49	0.49	0.49
v/c Ratio	0.24	0.94	0.13	0.47	0.73	0.15	0.24	1.26	0.18	1.07	0.91	0.23
Control Delay	17.5	45.9	6.6	23.0	28.6	5.9	15.7	142.8	4.3	104.1	37.3	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	45.9	6.6	23.0	28.6	5.9	15.7	142.8	4.3	104.1	37.3	3.1
LOS	B	D	A	C	C	A	B	F	A	F	D	A
Approach Delay		42.5			26.3			123.3			44.3	
Approach LOS		D			C			F			D	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 56.4 Intersection LOS: E
Intersection Capacity Utilization 88.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

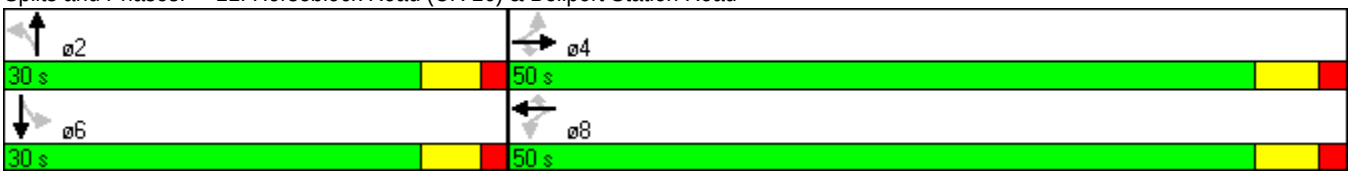


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	53	706	384	7	651	123	246	204	116	200
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		26.0		26.0
Actuated g/C Ratio		0.58	0.58		0.58	0.58		0.32		0.32
v/c Ratio		1.04	0.40		0.78	0.17		1.29		0.79
Control Delay		62.7	4.4		25.1	11.5		176.3		37.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		62.7	4.4		25.1	11.5		176.3		37.4
LOS		E	A		C	B		F		D
Approach Delay		43.1			23.0			176.3		37.4
Approach LOS		D			C			F		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 46 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 58.6 Intersection LOS: E
Intersection Capacity Utilization 125.4% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

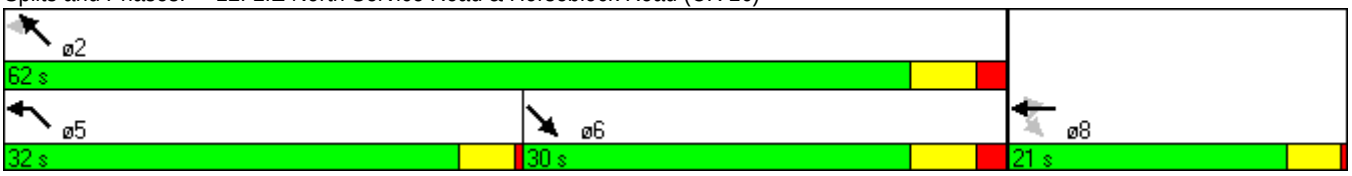


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	370	135	1043	681	752
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	9.8	9.8	22.0	8.0	22.0
Total Split (s)	21.0	21.0	30.0	32.0	62.0
Total Split (%)	25.3%	25.3%	36.1%	38.6%	74.7%
Yellow Time (s)	3.3	3.3	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	2.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.0	17.0	26.0	60.0	58.0
Actuated g/C Ratio	0.20	0.20	0.31	0.72	0.70
v/c Ratio	0.98	0.34	0.96	1.02	0.63
Control Delay	63.1	7.7	47.5	59.2	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	7.7	47.5	59.2	9.5
LOS	E	A	D	E	A
Approach Delay	53.9		47.5		33.1
Approach LOS	D		D		C

Intersection Summary

Cycle Length: 83
Actuated Cycle Length: 83
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 42.8 Intersection LOS: D
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

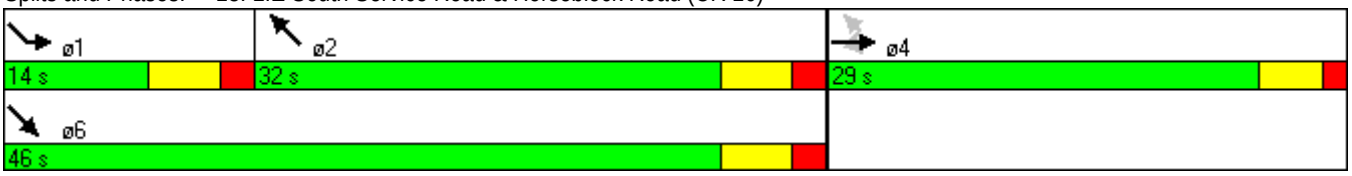


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	274	152	612	469	876	1087
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	25.0	25.0	25.0	10.0	42.0	28.0
Actuated g/C Ratio	0.33	0.33	0.33	0.13	0.56	0.37
v/c Ratio	0.48	0.28	1.26	1.14	0.49	1.59
Control Delay	22.8	19.9	153.9	118.9	11.1	295.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	19.9	153.9	118.9	11.1	295.4
LOS	C	B	F	F	B	F
Approach Delay		99.7			48.7	295.4
Approach LOS		F			D	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.59
Intersection Signal Delay: 138.9 Intersection LOS: F
Intersection Capacity Utilization 97.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



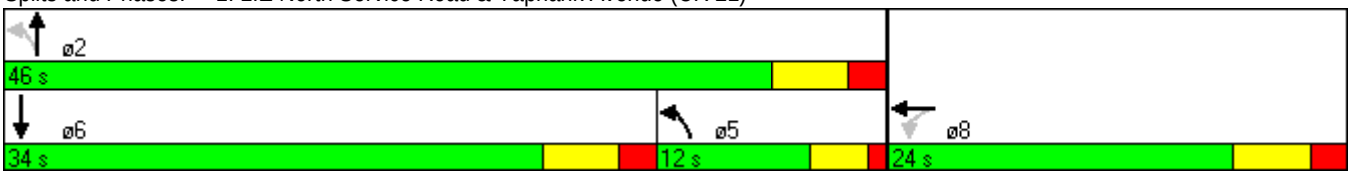
MITIGATED NO BUILD SATURDAY PEAK HOUR LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	6	211	215	150
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	11.2	50.8	50.8	38.8
Actuated g/C Ratio	0.16	0.73	0.73	0.55
v/c Ratio	0.39	0.28	0.20	0.12
Control Delay	21.6	1.4	1.0	5.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	21.6	1.4	1.0	5.6
LOS	C	A	A	A
Approach Delay	21.6		1.2	5.6
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 6.9 Intersection LOS: A
Intersection Capacity Utilization 37.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

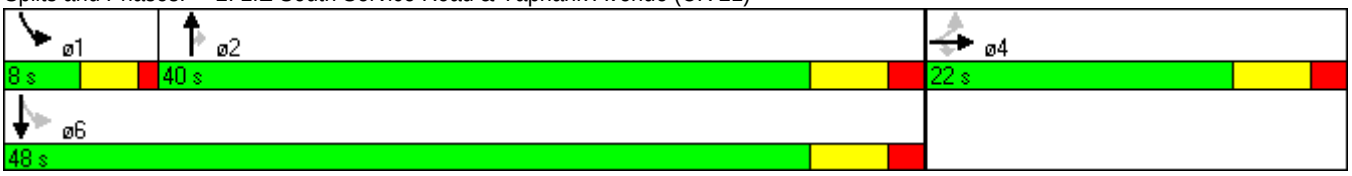


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	230	350	172	62	216
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.5	11.5	42.2	42.2	50.5	50.5
Actuated g/C Ratio	0.16	0.16	0.60	0.60	0.72	0.72
v/c Ratio	0.32	0.56	0.38	0.21	0.11	0.10
Control Delay	28.0	8.6	9.8	2.1	2.0	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	8.6	9.8	2.1	2.0	1.8
LOS	C	A	A	A	A	A
Approach Delay	13.7		7.2			1.8
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 7.7 Intersection LOS: A
Intersection Capacity Utilization 37.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	7	0	0	3	6	487	0	0	416	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	8	0	0	4	7	560	0	0	433	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1010	1007	217	798	1012	560	439			560		
vC1, stage 1 conf vol	433	433		574	574							
vC2, stage 2 conf vol	577	574		225	439							
vCu, unblocked vol	1010	1007	217	798	1012	560	439			560		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	99	100	100	99	99			100		
cM capacity (veh/h)	391	424	788	436	421	472	1118			1007		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	16	4	7	560	0	0	217	217	5
Volume Left	8	0	7	0	0	0	0	0	0
Volume Right	8	4	0	0	0	0	0	0	5
cSH	523	472	1118	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.03	0.01	0.01	0.33	0.00	0.00	0.13	0.13	0.00
Queue Length 95th (ft)	2	1	0	0	0	0	0	0	0
Control Delay (s)	12.1	12.7	8.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B	A						
Approach Delay (s)	12.1	12.7	0.1			0.0			
Approach LOS	B	B							

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	75	384	29	84	347
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.91	0.91
Hourly flow rate (vph)	16	88	452	34	92	381
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1018	452			486	
vC1, stage 1 conf vol	452					
vC2, stage 2 conf vol	566					
vCu, unblocked vol	1018	452			486	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	85			91	
cM capacity (veh/h)	447	608			1077	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	105	452	34	92	381
Volume Left	16	0	0	92	0
Volume Right	88	0	34	0	0
cSH	575	1700	1700	1077	1700
Volume to Capacity	0.18	0.27	0.02	0.09	0.22
Queue Length 95th (ft)	17	0	0	7	0
Control Delay (s)	12.6	0.0	0.0	8.7	0.0
Lane LOS	B			A	
Approach Delay (s)	12.6	0.0		1.7	
Approach LOS	B				

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	71	64	36	350	314	33
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	84	75	42	412	369	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	866	369	369			
vC1, stage 1 conf vol	369					
vC2, stage 2 conf vol	496					
vCu, unblocked vol	866	369	369			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	84	89	96			
cM capacity (veh/h)	513	676	1189			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	84	75	42	412	369	39
Volume Left	84	0	42	0	0	0
Volume Right	0	75	0	0	0	39
cSH	513	676	1189	1700	1700	1700
Volume to Capacity	0.16	0.11	0.04	0.24	0.22	0.02
Queue Length 95th (ft)	14	9	3	0	0	0
Control Delay (s)	13.4	11.0	8.1	0.0	0.0	0.0
Lane LOS	B	B	A			
Approach Delay (s)	12.2		0.8		0.0	
Approach LOS	B					

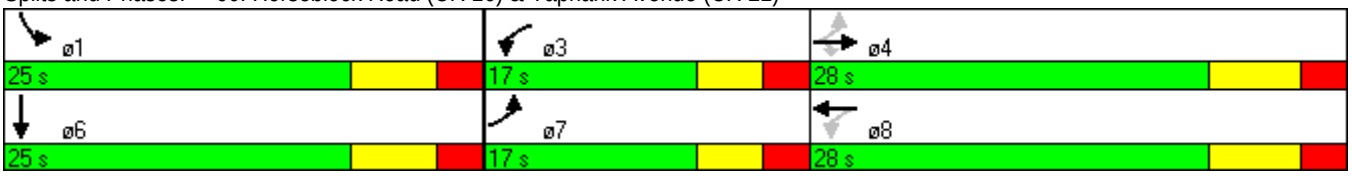
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	112	793	48	41	640	186	78
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	25.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	44.4	37.9	37.9	41.0	34.1	16.4	16.4
Actuated g/C Ratio	0.63	0.54	0.54	0.59	0.49	0.23	0.23
v/c Ratio	0.27	0.50	0.06	0.12	0.41	0.52	0.20
Control Delay	7.4	14.0	4.9	6.5	14.6	27.5	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	14.0	4.9	6.5	14.6	27.5	21.2
LOS	A	B	A	A	B	C	C
Approach Delay		12.8			14.1		25.6
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 14.9 Intersection LOS: B
Intersection Capacity Utilization 45.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	953	645	0	0	95
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.93	0.93
Hourly flow rate (vph)	0	1108	717	0	0	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	717				994	358
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	369				688	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	1029				330	941

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	277	277	277	277	358	358	102
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	102
cSH	1700	1700	1700	1700	1700	1700	941
Volume to Capacity	0.16	0.16	0.16	0.16	0.21	0.21	0.11
Queue Length 95th (ft)	0	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS							A
Approach Delay (s)	0.0				0.0		9.3
Approach LOS							A

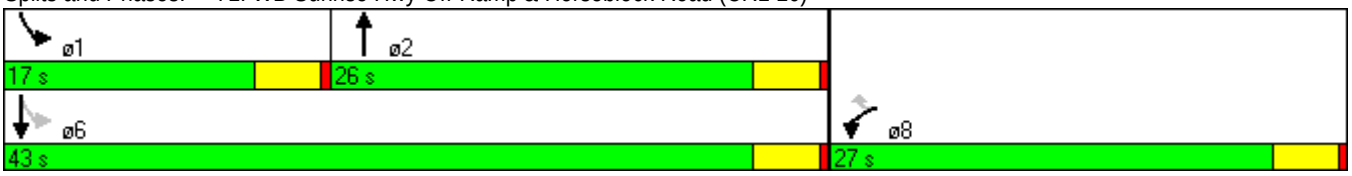
Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	58	447	495	231	696
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	8.0	20.0
Total Split (s)	27.0	27.0	26.0	17.0	43.0
Total Split (%)	38.6%	38.6%	37.1%	24.3%	61.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.9	11.9	37.0	50.1	50.1
Actuated g/C Ratio	0.17	0.17	0.53	0.72	0.72
v/c Ratio	0.23	0.80	0.42	0.48	0.30
Control Delay	23.8	14.0	12.0	7.9	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	14.0	12.0	7.9	5.1
LOS	C	B	B	A	A
Approach Delay	15.1		12.0		5.8
Approach LOS	B		B		A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 10.1 Intersection LOS: B
Intersection Capacity Utilization 53.5% ICU Level of Service A
Analysis Period (min) 15

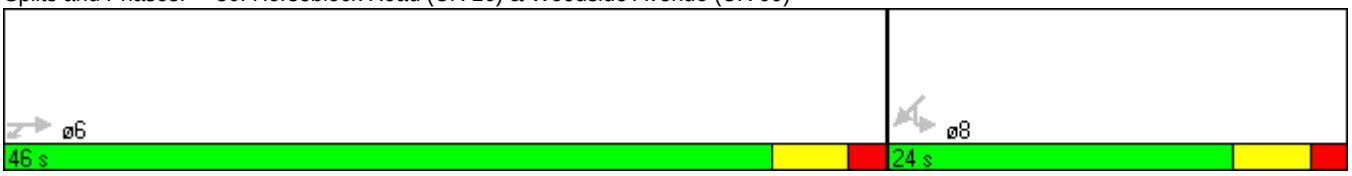
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	568	18	208
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	50.1	50.1	11.9
Actuated g/C Ratio	0.72	0.72	0.17
v/c Ratio	0.25	0.02	0.40
Control Delay	2.0	0.6	32.3
Queue Delay	0.0	0.0	0.0
Total Delay	2.0	0.6	32.3
LOS	A	A	C
Approach Delay	2.0		32.3
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 10.0	Intersection LOS: B
Intersection Capacity Utilization 28.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

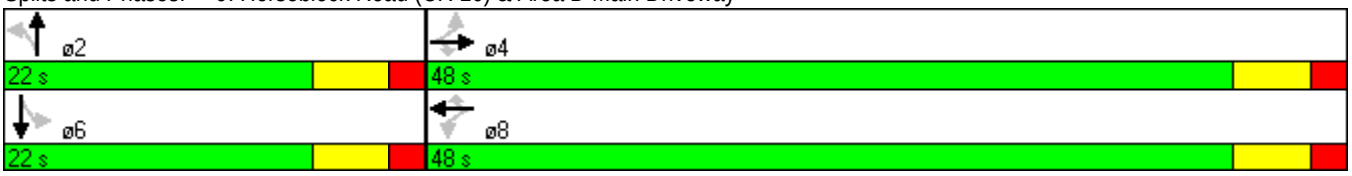


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	22	554	163	114	644	41	144	0	89	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	22.0	22.0	22.0	22.0
Total Split (%)	68.6%	68.6%	68.6%	68.6%	68.6%	68.6%	31.4%	31.4%	31.4%	31.4%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	44.0	44.0	44.0	44.0	44.0	44.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.26	0.26	0.26	0.26
v/c Ratio	0.07	0.26	0.16	0.25	0.59	0.04	0.47	0.28	0.35	0.09
Control Delay	3.3	3.6	0.4	15.0	21.2	6.2	27.3	1.1	25.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	3.6	0.4	15.0	21.2	6.2	27.3	1.1	25.7	0.3
LOS	A	A	A	B	C	A	C	A	C	A
Approach Delay		2.9			19.5			13.4		16.8
Approach LOS		A			B			B		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 12.3 Intersection LOS: B
Intersection Capacity Utilization 65.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

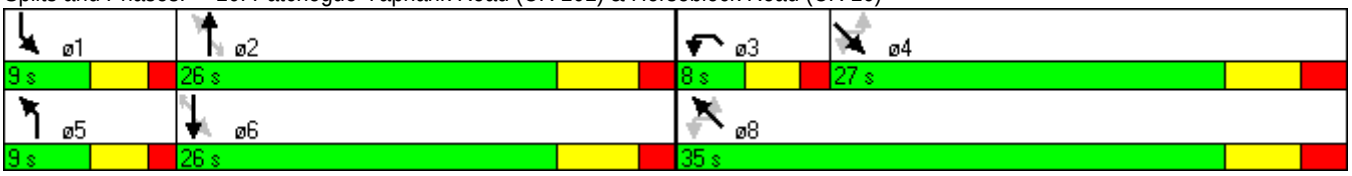


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	42	596	64	60	584	55	72	561	33	97	590	61
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	28.6	25.6	25.6	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.41	0.37	0.37	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.15	0.52	0.12	0.22	0.51	0.10	0.57	1.02	0.06	0.48	0.73	0.08
Control Delay	12.5	20.2	5.6	13.3	20.0	5.8	22.4	49.6	1.5	16.0	17.2	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	20.2	5.6	13.3	20.0	5.8	22.4	49.6	1.5	16.0	17.2	2.6
LOS	B	C	A	B	B	A	C	D	A	B	B	A
Approach Delay		18.4			18.3			44.2			15.8	
Approach LOS		B			B			D			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 24.1 Intersection LOS: C
Intersection Capacity Utilization 72.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

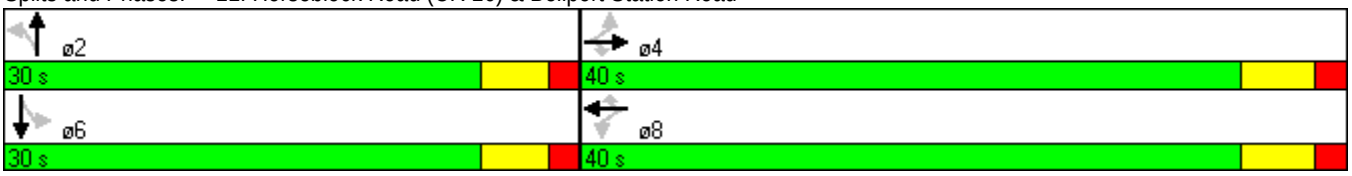


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	28	598	393	6	656	55	308	170	47	120
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.87	0.45		0.78	0.08		1.07		0.38
Control Delay		29.1	4.4		22.8	10.5		87.0		16.5
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		29.1	4.4		22.8	10.5		87.0		16.5
LOS		C	A		C	B		F		B
Approach Delay		19.6			21.9			87.0		16.5
Approach LOS		B			C			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 33.2 Intersection LOS: C
Intersection Capacity Utilization 102.9% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

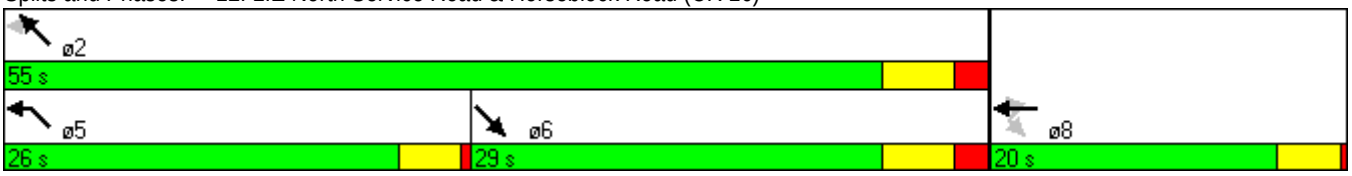


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	353	269	879	508	772
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	8.0	22.0
Total Split (s)	20.0	20.0	29.0	26.0	55.0
Total Split (%)	26.7%	26.7%	38.7%	34.7%	73.3%
Yellow Time (s)	3.5	3.5	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	2.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.8	14.8	28.9	54.2	52.2
Actuated g/C Ratio	0.20	0.20	0.39	0.72	0.70
v/c Ratio	0.69	0.62	0.66	0.87	0.63
Control Delay	33.2	13.5	22.7	29.7	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	13.5	22.7	29.7	14.5
LOS	C	B	C	C	B
Approach Delay	25.9		22.7		20.5
Approach LOS	C		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 22.6 Intersection LOS: C
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

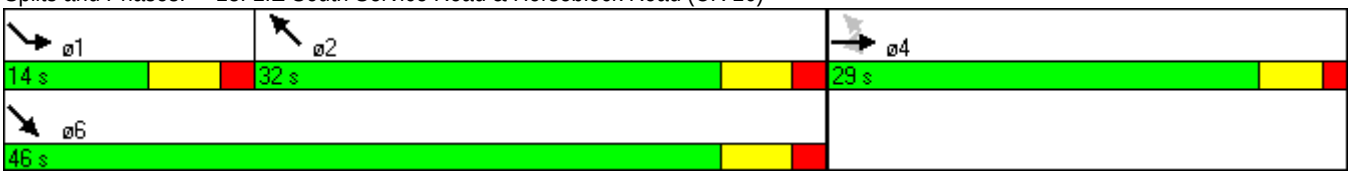


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	133	93	438	285	654	1115
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.6	20.6	20.6	11.2	46.4	31.2
Actuated g/C Ratio	0.27	0.27	0.27	0.15	0.62	0.42
v/c Ratio	0.26	0.19	0.86	0.65	0.35	1.54
Control Delay	20.9	19.8	30.5	44.2	7.2	272.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	19.8	30.5	44.2	7.2	272.7
LOS	C	B	C	D	A	F
Approach Delay		27.1			18.4	272.7
Approach LOS		C			B	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.54
Intersection Signal Delay: 124.6 Intersection LOS: F
Intersection Capacity Utilization 86.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



APPENDIX H: NEW YORK ISLANDERS HOME SCHEDULE AT NASSAU COLISEUM

Search Results for "nassau colliseum" » Music (6)

Other close matches: nassau coliseum, kansas coliseum, cassell coliseum

Set Your Location

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City

Long Island, NY (6)

Category

[All]
Music (6)

Event

Backstreet Boys (2)
New Kids On The Block & Backstreet Boys (2)
New Kids On the Block (2)
Chris Young (1)
Lady Gaga (1)
Luke Bryan (1)
Rascal Flatts (1)
Sade (1)
See More »

Venue

Nassau Coliseum (6)

Date Range

December 2010
February 2011
April 2011
June 2011

Shop by Dates

From: 12/15/2010
To: 12/29/2010
GO

United States Of America (6)

Event	Location	Date
Trans-Siberian Orchestra - Winter Tour 2010	**Nassau Coliseum** Long Island, NY	Fri, 12/17/10 08:00 PM
JCPenney Presents Rascal Flatts W/ Luke Bryan and Chris Young	**Nassau Coliseum** Long Island, NY	Fri, 02/25/11 07:30 PM
Virgin Mobile Presents the Monster Ball Tour Starring Lady Gaga	**Nassau Coliseum** Long Island, NY	Sat, 04/23/11 08:00 PM
New Kids On the Block-Back Street Boys VIP Packages	**Nassau Coliseum** Long Island, NY	Sat, 06/11/11
New Kids On The Block & Backstreet Boys	**Nassau Coliseum** Long Island, NY	Sat, 06/11/11 07:30 PM
Sade Live In Concert	**Nassau Coliseum** Long Island, NY	Tue, 06/21/11 07:30 PM

Search Results for "nassau colliseum" » Family (22)

Other close matches: nassau coliseum, kansas coliseum, cassell coliseum

Set Your Location

City or Zip Code Go

City

Long Island, NY (22)

Category

[All]
Family (22)

Event

Ringling Bros. and Barnum & Bailey: Fully Charged (11)
Disney On Ice : Princess Wishes (8)
Harlem Globetrotters (2)
Smucker's Stars on Ice (1)

Venue

Nassau Coliseum (22)

Date Range

January 2011
February 2011
March 2011
April 2011

Shop by Dates

From: 12/15/2010
To: 12/29/2010
GO

United States Of America (22)

Event	Location	Date	
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Thu, 01/06/11 07:00 PM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Fri, 01/07/11 10:30 AM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Fri, 01/07/11 07:00 PM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Sat, 01/08/11 11:00 AM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Sat, 01/08/11 03:00 PM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Sat, 01/08/11 07:00 PM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Sun, 01/09/11 11:00 AM	Find Tickets »
Disney On Ice : Princess Wishes	Nassau Coliseum Long Island, NY	Sun, 01/09/11 03:00 PM	Find Tickets »
Harlem Globetrotters	Nassau Coliseum Long Island, NY	Sun, 02/20/11 01:00 PM	Find Tickets »
Harlem Globetrotters	Nassau Coliseum Long Island, NY	Sun, 02/20/11 06:00 PM	Find Tickets »
Ringling Bros. and Barnum & Bailey Circus Fully Charged	Nassau Coliseum Long Island, NY	Wed, 03/16/11 07:30 PM	Find Tickets »
Ringling Bros. and Barnum & Bailey Circus Fully Charged	Nassau Coliseum Long Island, NY	Thu, 03/17/11 10:30 AM	Find Tickets »
Ringling Bros. and Barnum & Bailey Circus Fully Charged	Nassau Coliseum Long Island, NY	Thu, 03/17/11 07:30 PM	Find Tickets »

Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Fri, 03/18/11 10:30 AM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Fri, 03/18/11 07:30 PM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Sat, 03/19/11 10:30 AM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Sat, 03/19/11 03:00 PM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Sat, 03/19/11 07:30 PM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Sun, 03/20/11 10:30 AM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Sun, 03/20/11 03:00 PM	**Find Tickets »**
Ringling Bros. and Barnum & Bailey Circus Fully Charged	**Nassau Coliseum** Long Island, NY	Sun, 03/20/11 07:30 PM	**Find Tickets »**
Smucker's Stars on Ice	**Nassau Coliseum** Long Island, NY	Fri, 04/01/11 07:30 PM	**Find Tickets »**

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Set Your Location

City or Zip Code Go

City

Long Island, NY (35)

Category

[All]
Sports (35)

Event

New York Islanders (29)
Monster Jam (4)
Pittsburgh Penguins (3)
Boston Bruins (2)
Buffalo Sabres (2)
Carolina Hurricanes (2)
New Jersey Devils (2)
Ottawa Senators (2)
See More »

Venue

Nassau Coliseum (35)

Date Range

December 2010
January 2011
February 2011
March 2011
April 2011

Shop by Dates

From: 12/15/2010
To: 12/29/2010
GO

United States Of America (35)

Event	Location	Date	
New York Islanders vs. Anaheim Ducks	Nassau Coliseum Long Island, NY	Thu, 12/16/10 07:00 PM	Find Tickets »
New York Islanders vs. Phoenix Coyotes	Nassau Coliseum Long Island, NY	Sat, 12/18/10 07:00 PM	Find Tickets »
New York Islanders vs. Tampa Bay Lightning	Nassau Coliseum Long Island, NY	Wed, 12/22/10 07:00 PM	Find Tickets »
New York Islanders vs. Montreal Canadiens	Nassau Coliseum Long Island, NY	Sun, 12/26/10 07:00 PM	Find Tickets »
New York Islanders vs. Pittsburgh Penguins	Nassau Coliseum Long Island, NY	Wed, 12/29/10 07:00 PM	Find Tickets »
New York Islanders vs. Vancouver Canucks	Nassau Coliseum Long Island, NY	Tue, 01/11/11 07:00 PM	Find Tickets »
New York Islanders vs. Ottawa Senators	Nassau Coliseum Long Island, NY	Thu, 01/13/11 07:00 PM	Find Tickets »
New York Islanders vs. Buffalo Sabres	Nassau Coliseum Long Island, NY	Sat, 01/15/11 07:00 PM	Find Tickets »
New York Islanders vs. New Jersey Devils	Nassau Coliseum Long Island, NY	Mon, 01/17/11 01:00 PM	Find Tickets »
Inside the Game Feat. John Elway, Dan Marino, Peter King & Joe Buck	Nassau Coliseum Long Island, NY	Tue, 01/18/11 07:30 PM	Find Tickets »
New York Islanders vs. Washington Capitals	Nassau Coliseum Long Island, NY	Thu, 01/20/11 07:00 PM	Find Tickets »
New York Islanders vs. Buffalo Sabres	Nassau Coliseum Long Island, NY	Sun, 01/23/11 03:00 PM	Find Tickets »
New York Islanders vs. Carolina Hurricanes	Nassau Coliseum Long Island, NY	Wed, 01/26/11 07:00 PM	Find Tickets »

Monster Jam	**Nassau Coliseum** Long Island, NY	Fri, 01/28/11 07:30 PM	**Find Tickets »**
Monster Jam	**Nassau Coliseum** Long Island, NY	Sat, 01/29/11 02:00 PM	**Find Tickets »**
Monster Jam	**Nassau Coliseum** Long Island, NY	Sat, 01/29/11 07:30 PM	**Find Tickets »**
Monster Jam	**Nassau Coliseum** Long Island, NY	Sun, 01/30/11 02:00 PM	**Find Tickets »**
WWE Presents "SMACKDOWN"	**Nassau Coliseum** Long Island, NY	Tue, 02/01/11 06:45 PM	**Find Tickets »**
New York Islanders vs. **Ottawa Senators**	**Nassau Coliseum** Long Island, NY	Sat, 02/05/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Toronto Maple Leafs**	**Nassau Coliseum** Long Island, NY	Tue, 02/08/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Pittsburgh Penguins**	**Nassau Coliseum** Long Island, NY	Fri, 02/11/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Boston Bruins**	**Nassau Coliseum** Long Island, NY	Thu, 02/17/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Los Angeles Kings**	**Nassau Coliseum** Long Island, NY	Sat, 02/19/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Florida Panthers**	**Nassau Coliseum** Long Island, NY	Mon, 02/21/11 01:00 PM	**Find Tickets »**
New York Islanders vs. **Washington Capitals**	**Nassau Coliseum** Long Island, NY	Sat, 02/26/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Minnesota Wild**	**Nassau Coliseum** Long Island, NY	Wed, 03/02/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **St. Louis Blues**	**Nassau Coliseum** Long Island, NY	Sat, 03/05/11 01:00 PM	**Find Tickets »**
New York Islanders vs. **New Jersey Devils**	**Nassau Coliseum** Long Island, NY	Sun, 03/06/11 03:00 PM	**Find Tickets »**
New York Islanders vs. **Toronto Maple Leafs**	**Nassau Coliseum** Long Island, NY	Tue, 03/08/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Boston Bruins**	**Nassau Coliseum** Long Island, NY	Fri, 03/11/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Atlanta Thrashers**	**Nassau Coliseum** Long Island, NY	Thu, 03/24/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Philadelphia Flyers**	**Nassau Coliseum** Long Island, NY	Sat, 03/26/11 07:00 PM	**Find Tickets »**

New York Islanders vs. **New York Rangers**	**Nassau Coliseum** Long Island, NY	Thu, 03/31/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Carolina Hurricanes**	**Nassau Coliseum** Long Island, NY	Sat, 04/02/11 07:00 PM	**Find Tickets »**
New York Islanders vs. **Pittsburgh Penguins**	**Nassau Coliseum** Long Island, NY	Fri, 04/08/11 07:00 PM	**Find Tickets »**

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APPENDIX I: OVERALL NETWORK PEAK HOURS

Weekday AM Peak Hour	7 - 8 AM	7:15 - 8:15 AM	7:30 - 8:30 AM	7:45 - 8:45 AM	8 - 9 AM	MAX:
Yaphank Avenue at LIE North Service Road	759	784	790	***815***	793	815
Yaphank Avenue at LIE South Service Road	1,057	1,122	1,179	***1,209***	1,199	1,209
Yaphank Avenue at SCDPW Driveway	995	1,104	1,199	***1,277***	1,252	1,277
Yaphank Avenue (CR 21) at Gerard Road	725	817	857	***881***	818	881
Yaphank Avenue (CR 21) at Glover Drive	786	883	928	***960***	901	960
Yaphank Avenue at Horseblock Road (CR 16)	1,452	1,580	1,648	***1,670***	1,668	1,670
Yaphank Avenue-Horseblock Road at Sunrise Highway Exit 57	1,358	1,517	***1,570***	1,537	1,481	1,570
Horseblock Road (CR 16) at Woodside Avenue (CR 99)	906	927	947	***968***	930	968
Horseblock Road (CR 16) at Sills Road (CR 101)	1,794	1,935	1,979	***1,981***	1,868	1,981
Horseblock Road at Bellport Road	1,259	1,330	***1,353***	1,313	1,272	1,353
Horseblock Road at LIE North Service Road	1,669	1,709	1,749	***1,792***	1,663	1,792
Horseblock Road at LIE South Service Road	1,178	1,584	1,694	***1,703***	1,607	1,703
Total	**13,938**	**15,292**	**15,893**	**16,106**	**15,452**	**16,106**

Weekday Midday Peak Hour	11 - 12 PM	11:15 - 12:15 PM	11:30 - 12:30 PM	11:45 - 12:45 PM	12 - 1 PM	12:15 - 1:15 PM	12:30 - 1:30 PM	12:45 - 1:45 PM	1 - 2 PM	MAX:
Yaphank Avenue at LIE North Service Road	590	668	***712***	702	675	619	583	634	690	712
Yaphank Avenue at LIE South Service Road	823	895	922	***939***	931	901	898	894	934	939
Yaphank Avenue at SCDPW Driveway	713	744	807	***837***	808	814	817	811	817	837
Yaphank Avenue (CR 21) at Gerard Road	523	526	563	570	609	621	611	610	***634***	634
Yaphank Avenue (CR 21) at Glover Drive	575	579	620	634	680	***695***	679	671	689	695
Yaphank Avenue at Horseblock Road (CR 16)	1,548	1,609	1,682	***1,719***	1,668	1,556	1,542	1,473	1,502	1,719
Yaphank Avenue-Horseblock Road at Sunrise Highway Exit 57	1,363	1,510	1,617	1,637	1,633	***1,639***	1,618	1,538	1,476	1,639
Horseblock Road (CR 16) at Woodside Avenue (CR 99)	1,138	1,225	1,393	1,472	***1,506***	1,457	1,375	1,351	1,244	1,506
Horseblock Road (CR 16) at Sills Road (CR 101)	1,496	1,559	1,652	1,731	***1,732***	1,700	1,663	1,632	1,610	1,732
Horseblock Road at Bellport Road	1,427	1,513	1,591	1,616	1,611	1,579	1,525	1,558	***1,624***	1,624
Horseblock Road at LIE North Service Road	1,733	1,780	***1,925***	1,841	1,883	1,861	1,829	1,908	1,895	1,925
Horseblock Road at LIE South Service Road	1,704	1,771	1,803	1,868	1,815	1,859	1,888	1,848	***1,904***	1,904
Total	**13,633**	**14,379**	**15,287**	**15,566**	**15,551**	**15,301**	**15,028**	**14,928**	**15,019**	**15,566**

Weekday PM Peak Hour	4 - 5 PM	4:15 - 5:15 PM	4:30 - 5:30 PM	4:45 - 5:45 PM	5 - 6 PM	MAX:
Yaphank Avenue at LIE North Service Road	***871***	831	806	709	649	871
Yaphank Avenue at LIE South Service Road	1,372	***1,373***	1,355	1,224	1,064	1,373
Yaphank Avenue at SCDPW Driveway	1,310	1,302	***1,312***	1,203	1,070	1,312
Yaphank Avenue (CR 21) at Gerard Road	***979***	913	924	847	818	979
Yaphank Avenue (CR 21) at Glover Drive	***995***	934	949	852	823	995
Yaphank Avenue at Horseblock Road (CR 16)	2,016	2,094	***2,161***	2,130	1,970	2,161
Yaphank Avenue-Horseblock Road at Sunrise Highway Exit 57	1,792	1,840	***1,910***	1,892	1,846	1,910
Horseblock Road (CR 16) at Woodside Avenue (CR 99)	1,108	1,114	***1,119***	1,030	966	1,119
Horseblock Road (CR 16) at Sills Road (CR 101)	2,107	2,260	2,290	***2,314***	2,238	2,314
Horseblock Road at Bellport Road	1,746	1,751	***1,772***	1,751	1,710	1,772
Horseblock Road at LIE North Service Road	2,192	***2,270***	2,237	2,164	2,109	2,270
Horseblock Road at LIE South Service Road	2,303	2,329	***2,434***	2,432	2,408	2,434
Total	**18,791**	**19,011**	**19,269**	**18,548**	**17,671**	**19,269**

Saturday Midday Peak Hour	11 - 12 PM	11:15 - 12:15 PM	11:30 - 12:30 PM	11:45 - 12:45 PM	12 - 1 PM	12:15 - 1:15 PM	12:30 - 1:30 PM	12:45 - 1:45 PM	1 - 2 PM	MAX:
Yaphank Avenue at LIE North Service Road	485	500	466	482	498	491	513	***527***	507	527
Yaphank Avenue at LIE South Service Road	593	632	606	616	637	608	648	***672***	646	672
Yaphank Avenue at SCDPW Driveway	495	540	528	517	542	500	534	***553***	534	553
Yaphank Avenue (CR 21) at Gerard Road	472	493	488	463	456	435	479	***523***	521	523
Yaphank Avenue (CR 21) at Glover Drive	470	476	473	444	435	433	480	***518***	516	518
Yaphank Avenue at Horseblock Road (CR 16)	1,266	1,315	1,392	***1,486***	1,468	1,401	1,345	1,375	1,378	1,486
Yaphank Avenue-Horseblock Road at Sunrise Highway Exit 57	1,405	1,417	***1,425***	1,384	1,398	1,336	1,250	1,242	1,256	1,425
Horseblock Road (CR 16) at Woodside Avenue (CR 99)	1,087	1,121	***1,147***	1,072	1,063	984	893	866	855	1,147
Horseblock Road (CR 16) at Sills Road (CR 101)	1,688	1,764	1,805	***1,832***	1,818	1,743	1,649	1,580	1,557	1,832
Horseblock Road at Bellport Road	1,662	1,682	***1,734***	1,691	1,652	1,625	1,538	1,512	1,505	1,734
Horseblock Road at LIE North Service Road	2,010	2,070	2,126	***2,138***	2,121	2,081	2,026	1,975	1,945	2,138
Horseblock Road at LIE South Service Road	1,879	1,921	1,977	***1,990***	1,972	1,981	1,907	1,849	1,857	1,990
Total	**13,512**	**13,931**	**14,167**	**14,115**	**14,060**	**13,618**	**13,262**	**13,192**	**13,077**	**14,167**

APPENDIX J: TRANSIT RIDERSHIP DOCUMENTS

DEMOGRAPHICS

Population

Riverhead's population continues to grow at a significant pace. The Long Island Power Authority estimated that in 2005 the population in the Town of Riverhead was 32,028. This figure represented a 15.7% increase over the 2000 population of 27,680. (In the same period, Suffolk County's population increased by 4.5%). In percentage terms, Riverhead is currently the fastest growing of Suffolk County's ten towns. Riverhead's population increased in the 1990s by 20%, and it already increased by another 16% between 2000 and 2005 while the County's increase was 5% in that period. See Table 53. Riverhead's population is projected to increase by approximately 33% between 2005 and full buildout to between 41,000 and 43,000.

Table 53. Population, Town of Riverhead, 1970, 1980, 1990, 2000 and 2005

	1970	*1980*	*1990*	*2000*	*2005*
Population	18,909	20,243	23,011	27,680	32,028
% Change Town of Riverhead	-	7%	14%	20%	16%
% Change Suffolk County	-	14%	3%	7%	5%

Source: U.S. Census Bureau, Long Island Power Authority

The Town of Riverhead is the most densely populated Town in eastern Suffolk County. In 2003, the Town had a population density of 475 persons per square mile, slightly higher than the density in the Towns of Southampton and Southold, and significantly more dense than the Towns of East Hampton and Shelter Island. However, its population density was one-third the density of Suffolk County overall and one-fifth the density of the five western Suffolk County Towns.

Typical of Long Island communities, Riverhead's population is aging. The median age in Riverhead was 31.3 in 1970, rose to 36.8 in 1980, increased to 38.7 in 1990 and was 40.6 in 2000. In 2000, the median age was significantly higher than the median age in Suffolk County overall (36.5). However, Riverhead's 2000 median age was lower than the median age in the Towns of East Hampton, Southold, and Shelter Island.

Riverhead Town has a relatively aged population. In 2000, the percentage of population in every five-year age group younger than 50 was lower in Riverhead than in Suffolk County overall. Meanwhile, the percentage of persons aged 65 and over was much higher in Riverhead (18.5%) than in Suffolk County overall (11.8%). The population aged 65 and over increased by 8% in Riverhead between 1990 and 2000. A full 30% of all households in Riverhead are headed by a person aged 65 or over, compared to 21% in Suffolk County as a whole.

In recent decades, Riverhead Town has experienced significant growth in the number of households. In 1980, Riverhead had 7,492 households and by 1990 that number had increased to 8,736. Between 1990 and 2000 the number of households increased 23%, to 10,749. Household growth was 14% between 2000 and 2005 and in 2005 there were 12,266 households in Riverhead Town. The number of households is expected to continue to increase in coming years.

In recent decades, the number of persons per household has been declining in Riverhead, as it has in most other areas of Long Island. This is the primary reason why population growth in the Town slowed in the 1970s and 1980s. The average size of a household in the Town of Riverhead in 1970 was 3.1 persons. Average household size in Riverhead declined significantly in the 1970s to 2.6 persons per household in 1980. By 2000, household size in the Town had declined more slowly, to 2.5 persons per household. The average household size in Riverhead has remained below the average for Suffolk County due to Riverhead's smaller housing units and the relatively large number of senior citizens in Riverhead who tend to have smaller households.

Housing

As of 2000, Riverhead Town contained 12,479 housing units, of which 10,749 (86%) were occupied. The majority of the remainder of the housing units were held for seasonal, recreational, or occasional use (mostly in Baiting Hollow, Wading River, and Jamesport). The number of seasonal housing units has been decreasing in Riverhead Town in recent decades,

DEMOGRAPHICS

Population

Yaphank contains a relatively small population. The Long Island Power Authority estimated that in 2005 there were 5,363 residents in Yaphank. This figure includes the populations in the Suffolk County jail facility in Yaphank and the Suffolk County Infirmary / Nursing Home. These institutional populations represent about 15% of the total population of Yaphank. See Table 27.

Table 27. Resident Population in Yaphank, 1970, 1980, 1990, 2000 and 2005

	1970	*1980*	*1990*	*2000*	*2005*
Suffolk County Jail	74	54	630	499	523
Suffolk County Infirmary	180	154	213	257	250
Yaphank (balance)	1,702	2,604	3,794	4,269	4,590
TOTAL	**1,956**	**2,812**	**4,637**	**5,025**	**5,363**
% Change	-	44%	65%	8%	7%

Source: U.S. Census Bureau, Long Island Power Authority

Yaphank's population increased by 7% between 2000 and 2005, a more rapid rate of increase than the 8% increase for the entire decade of the 1990s. (Between 2000 and 2005, Suffolk County's population increased by 4.5%). Yaphank's total population increased in the 1990s by 8%, while the County's population increased by 7%.

Yaphank is the second least densely populated community in the Town of Brookhaven, after Eastport. In 2005, Yaphank had a population density of 383 persons per square mile, slightly lower than the density in the Towns of Riverhead, Southampton or Southold. Its population density was less than one-fourth the density of the Town of Brookhaven and of Suffolk County overall. Yaphank's population density was lower than the density in Manorville and much lower than the nearby communities of Middle Island and Medford. See Table 28.

Population is significant in the communities surrounding Yaphank. For example, as of 2005, Medford had a population of 23,328; Coram had 37,252 residents; Shirley's population was 27,374 and there were 13,969 residents of Ridge, compared to Yaphank's population of 5,363.

Typical of Long Island communities, Yaphank's population is aging. The median age in Yaphank was 31.2 in 1980; it increased to 32.6 in 1990 and was 37.2 in 2000.

Table 28. Population Density in Yaphank and Selected Other Areas, 2005

	Persons Per Square Mile
Yaphank	**383**
Manorville	517
Middle Island	1,318
Medford	2,215
Town of Riverhead	475
Town of Brookhaven	1,850
Suffolk County	1,626

Source: U.S. Census Bureau, Long Island Power Authority

In 2000, the median age was slightly higher than the median age in Suffolk County overall (36.5). The population aged 65 and over increased by 10% in Yaphank between 1990 and 2000. Of the 1,566 households in Yaphank in 2000, 20% were headed by a person aged 65 or over, compared to 21% in Suffolk County as a whole.

Housing

As of 2000, Yaphank contained 1,650 housing units, of which 1,566 (95%) were occupied. The remainder of the housing units were vacant. Yaphank's housing is comprised primarily of two types: detached single family homes, and attached condominiums. As of the 2000 census, 64% of all housing units in Yaphank were one-family detached units (compared with 82% in the Suffolk County as a whole) and 33% of the housing units were one-family attached (condominium) units. There are 604 condominium units in two complexes.

Yaphank has a slightly higher percentage of owner-occupied housing units than other parts of Suffolk County. In 2000, 82.7% of occupied households were owner-occupied. This figure compares with 79.8% in Suffolk County overall. As of 2000, the largest proportion of housing units in

Yaphank were built in the 1980s (28%), followed by the 1970s, when 18% of the housing was built. In the 20 year period 1940-1959, 24% of Yaphank's housing was constructed, and 11.8% of the housing was built in the 1990s. Nine percent of the units were built before 1940, and another 9% were built in the 1960s.

In 2000, the median housing value in Yaphank was 34% lower than the median in Suffolk County as a whole. In 2000, the median number of rooms in a home in Yaphank was 5.7 rooms, below the Suffolk County median of 6.3 rooms per home. The slightly smaller and more affordable nature of Yaphank's housing stock may attract young families, single persons, and senior citizens.

In Yaphank in 2000, 190 or 15% of homeowners paid more than thirty-five percent of their household income for housing and 22% of renters paid more than thirty-five percent of their household income for rent. These figures were lower than most towns in Suffolk County and much better than the County average.

The housing stock in Yaphank is sound. In 2000, Yaphank had 20 overcrowded housing units (defined as more than one person per room), 1.3% of the total. No units lacked complete plumbing facilities or complete kitchen facilities, and every unit had telephone service. All of these figures were more favorable than Suffolk County as a whole.

Income and Employment

Based on 2000 census figures, the median household income in Yaphank was estimated to be $84,760 in 2005. This figure is 8% higher than Suffolk County's median of $78,456. Yaphank's median household income was higher than any of the surrounding communities: Coram, Gordon Heights, Medford, Middle Island, Ridge, and Shirley.

In 2000, the resident labor force in Yaphank was 2,390 people, up 23% from 1990. The 2000 census reported that 2,287 of Yaphank's residents were employed. The unemployment rate was 3.9%, the same as the unemployment rate for Suffolk County at the time. The percentage of Yaphank's employed residents working in blue-collar occupations was 24% in 2000, compared to 21% in Suffolk County as a whole.

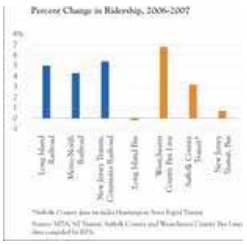
The 2000 census reported that 82% of Yaphank residents who work drove alone to work. Another 11% car-pooled, 3% took public transportation, 2% worked at home and the remainder walked or used other means. Compared to Suffolk County as a whole, there is a higher incidence of driving alone to work and a lower usage of public transportation to get to work among residents of Yaphank who work. This statistic is not surprising, since Yaphank is somewhat sparsely populated and residents' job locations are dispersed.

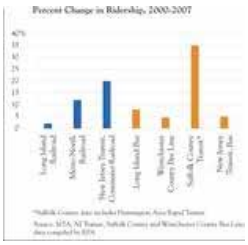
Indicators

Transit Ridership

The Long Island Rail Road saw an increase in ridership in 2007 but growth still lags other rail systems in the larger New York region.

Last Updated 2009





Why is this important?
Increased transit ridership helps reduce traffic congestion by taking motor vehicles off the road. An efficient transit system can provide quicker access to jobs, reduce air pollution and help to improve the overall livability of our communities.

How are we doing?
In 2007, the Long Island Rail Road experienced one of its largest gains in ridership in recent years, growing 5% over 2006. There are likely multiple reasons for increased ridership, including a growing economy in 2007, increasing gas prices, service improvements and growing highway congestion that gives people a greater incentive to use transit. Bus ridership, by contrast, leveled off after several years of strong growth in both Nassau and Suffolk.

Since 2000 the Long Island Rail Road has grown more slowly than other commuter rail systems in the New York region. Its 2% growth from 2000-2007 compares to 12% for Metro-North and 20% for New Jersey Transit. Some of this is the result of faster population growth in their service areas. However, both Metro-North and New Jersey Transit have added services, including Metro-North's third track and New Jersey's increased commuter trains, while the LIRR has not.

The Long Island Bus, which has experienced an 8% gain in ridership since 2000, has grown significantly more than the LIRR. Suffolk County Transit has grown by 35% over the same time period, a much more robust growth than other commuter bus systems in the region. This is due in part to population growth in Suffolk and in part to services that were added earlier in the decade. Many of these bus services provide a connection from local neighborhoods to LIRR stations and/or provide limited north/south intra-island mobility for Long Islanders.

MY PORTFOLIO View my portfolio

Save and retrieve your custom data searches

:: USERNAME

GO

New Registration
Forgot your Password?

WHAT'S NEW?

10.04.2010
Build a Better Burb Winners Announced

What EVERY Long Islander Should Know

DID YOU KNOW...

83% of Long Islanders believe it is very or somewhat important for children to spend at least one year attending a preschool program in order to

APPENDIX K: AADT SHEETS

STATION: **070222**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **I 495** ROAD NAME: **LIEWAY I495**
DIRECTION: Eastbound FACTOR GROUP: 30
STATE DIR CODE: 1 WK OF YR: 29
DATE OF COUNT: 07/14/2008
NOTES LANE 0: EB LIEWAY I495

COUNT TAKEN BY: ORG CODE: DOT INITIALS: afa

FROM: **INT 67 YAPHANK AVE CR 21**
REC. SERIAL #: 2013
PLACEMENT:
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS:

TO: **INT 68 WILLIAM FLOYD PKWY CR**
FUNC. CLASS: 11
NHS: yes
JURIS: NYSDOT
CC Stn:
BATCH ID: R10-DOTr10ww30

COUNTY: **Suffolk**
TOWN: **BROOKHAVEN**
BIN: 1064191
RR CROSSING:
HPMS SAMPLE: 39303010

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	T																											
2	W																											
3	T																											
4	F																											
5	S																											
6	S																											
7	M																											
8	T																											
9	W																											
10	T																											
11	F																											
12	S																											
13	S																											
14	M													**2363**	**2249**	**2171**	**2749**	**3093**	**3271**	**2606**	**1844**	**1553**	**1242**	**791**	**599**			
15	T	**470**	**259**	**164**	**126**	**185**	**643**	**1664**	**2282**	**2619**	**2807**	**2518**	**2518**	**2423**	**2305**	**2438**	**2686**	**3185**	**3351**	**2769**	**2062**	**1688**	**1336**	**929**	**665**	42092	3351	17
16	W	**517**	**262**	**158**	**133**	**230**	**641**	**1643**	**2348**	**2713**	**2828**	**2731**	**2740**	**2579**	**2444**	**2451**	**2907**	**3282**	**3238**	**2924**	**2138**	**1991**	**1483**	**1049**	**651**	44081	3282	16
17	T	**477**	**343**	**238**	**174**	**203**	**652**	**1726**	**2373**	**2723**	**2746**	**2901**	**2911**	**2949**	**2738**	**2710**	**3156**	**3447**	**3634**	**3102**	**2649**	**2487**	**2218**	**1616**	**1034**	49207	3634	17
18	F	**628**	**311**	**218**	**288**	**259**	**677**	**1614**	**2416**	**2848**	**3021**	**3390**	**3480**	**3810**	**3564**	**3700**	**3782**	**3843**	**3811**	**3864**	**3300**	**3088**	**2745**	**2154**	**1332**	58143	3864	18
19	S	**895**	**612**	**404**	**276**	**294**	**487**	**1060**	**1662**	**2630**	**3828**	**4523**	**4632**	**4693**	**4155**	**3728**	**3343**	**3069**	**2763**	**2446**	**1860**	**1629**	**1529**	**1314**	**1157**	52989	4693	12
20	S	**851**	**494**	**324**	**276**	**274**	**345**	**624**	**920**	**1432**	**2352**	**3063**	**3512**	**3495**	**3269**	**2864**	**2573**	**2094**	**1829**	**1688**	**1557**	**1460**	**1270**	**912**	**748**	38226	3512	11
21	M	**550**	**275**	**139**	**134**	**220**	**607**	**1622**	**2333**	**2516**	**2498**	**2480**	**2552**	**2472**	**2290**	**2395**	**2760**	**3050**	**3397**	**2592**	**2007**	**1630**	**1307**	**935**	**678**	41439	3397	17
22	T	**502**	**272**	**165**	**116**	**216**	**629**	**1639**	**2403**	**2517**	**2483**	**2357**	**2362**	**2380**	**2196**	**2337**	**2851**	**3290**	**3434**	**2761**	**2029**	**1628**	**1443**	**1049**	**811**	41870	3434	17
23	W	**667**	**314**	**189**	**121**	**189**	**595**	**1605**	**2279**	**2560**	**2477**	**2146**	**2041**	**2415**	**2357**	**2410**	**2856**	**3251**	**3606**	**2656**	**2013**	**1820**	**1448**	**953**	**657**	41625	3606	17
24	T	**469**	**347**	**228**	**122**	**209**	**575**	**1360**	**2045**	**2308**	**2008**	**1989**	**2177**	**2380**	**2572**	**2722**	**3021**	**3349**	**3652**	**2979**	**2565**	**2457**	**2198**	**1086**	**933**	43751	3652	17
25	F	**669**	**434**	**202**	**148**	**228**	**613**	**1626**	**2450**	**2839**	**3121**	**3388**	**3929**	**4098**	**3762**	**3786**	**3908**	**3854**	**4025**	**3774**	**3503**	**2956**	**2625**	**2228**	**1599**	59765	4098	12
26	S	**914**	**550**	**338**	**238**	**274**	**534**	**1107**	**1771**	**2480**	**3641**	**4522**	**4784**	**4629**	**4189**	**3823**	**3437**	**3098**	**2670**	**2248**	**1756**	**1553**	**1473**	**1350**	**1158**	52537	4784	11
27	S	**851**	**549**	**341**	**237**	**271**	**371**	**561**	**809**	**1161**	**1816**	**2650**	**3164**	**2652**	**3146**	**2245**	**1880**	**1742**	**1484**	**1400**	**1337**	**1253**	**1080**	**758**	**620**	32378	3164	11
28	M	**440**	**243**	**170**	**120**	**207**	**591**	**1578**	**2335**	**2511**	**2559**																	
29	T																											
30	W																											
31	T																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
550	**318**	**195**	**154**	**215**	**628**	**1608**	**2326**	**2615**	**2655**	**2656**	**2746**	**2495**	**2394**	**2454**	**2873**	**3243**	**3448**	**2799**	**2163**	**1907**	**1584**	**1051**	**754**	**43831**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED (one way)
15	334	9	202	3448	8%	1.000	1.105	**AADT 39666**

ROUTE #: **I 495** ROAD NAME: **LIEWAY I495** FROM: **INT 67 YAPHANK AVE CR 21** TO: **INT 68 WILLIAM FLOYD PKWY CR** COUNTY: **Suffolk**
STATION: **070222** STATE DIR CODE: **1** PLACEMENT: **DATE OF COUNT: 07/14/2008**

81,547

STATION: **070222**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **I 495** ROAD NAME: **LIEWAY I495**
DIRECTION: Westbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 29
DATE OF COUNT: 07/14/2008
NOTES LANE 0: WB LIEWAY I495

COUNT TAKEN BY: ORG CODE: DOT INITIALS: afa

FROM: **INT 67 YAPHANK AVE CR 21**
REC. SERIAL #: 3800
PLACEMENT:
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS:

TO: **INT 68 WILLIAM FLOYD PKWY CR**
FUNC. CLASS: 11
NHS: yes
JURIS: NYSDOT
CC Stn:
BATCH ID: R10-DOTr10ww30

COUNTY: **Suffolk**
TOWN: **BROOKHAVEN**
BIN: 1064191
RR CROSSING:
HPMS SAMPLE: 39303010

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	T																											
2	W																											
3	T																											
4	F																											
5	S																											
6	S																											
7	M																											
8	T																											
9	W																											
10	T																											
11	F																											
12	S																											
13	S																											
14	M														**2656**	**2954**	**3138**	**3492**	**3667**	**2532**	**1965**	**1548**	**1190**	**749**	**464**			
15	T	**229**	**126**	**110**	**212**	**450**	**1396**	**2631**	**3412**	**3253**	**2557**	**2178**	**2263**	**2312**	**2288**	**2657**	**3147**	**3524**	**3713**	**2653**	**2239**	**1552**	**1309**	**879**	**506**	45596	3713	17
16	W	**260**	**148**	**141**	**176**	**450**	**1374**	**2617**	**3275**	**3253**	**2520**	**2290**	**2249**	**2332**	**2405**	**2797**	**3124**	**3643**	**3636**	**2702**	**2246**	**1634**	**1342**	**829**	**474**	45917	3643	16
17	T	**243**	**125**	**122**	**222**	**456**	**1385**	**2486**	**3164**	**3310**	**2511**	**2261**	**2186**	**2403**	**2471**	**2635**	**3114**	**3573**	**3591**	**2668**	**2440**	**1771**	**1434**	**985**	**625**	46181	3591	17
18	F	**304**	**180**	**141**	**245**	**468**	**1308**	**2358**	**3038**	**2962**	**2363**	**2213**	**2205**	**2518**	**2445**	**2930**	**3281**	**3668**	**3559**	**2849**	**2541**	**1915**	**1479**	**1135**	**779**	46884	3668	16
19	S	**572**	**288**	**202**	**187**	**253**	**541**	**1026**	**1243**	**1656**	**1776**	**1943**	**2322**	**2361**	**2474**	**2824**	**3043**	**3366**	**3473**	**3472**	**3290**	**3471**	**2852**	**2362**	**2078**	47075	3473	17
20	S	**1119**	**585**	**322**	**220**	**180**	**318**	**642**	**813**	**1167**	**1698**	**2366**	**2826**	**3442**	**3616**	**4041**	**4402**	**4697**	**4704**	**4774**	**4570**	**4675**	**3851**	**2562**	**1136**	58726	4774	18
21	M	**408**	**168**	**149**	**249**	**563**	**1640**	**2929**	**3510**	**3454**	**2969**	**2716**	**2687**	**2785**	**2714**	**3002**	**3243**	**3606**	**3799**	**2622**	**2316**	**1927**	**1414**	**894**	**486**	50250	3799	17
22	T	**213**	**121**	**122**	**230**	**487**	**1362**	**2682**	**3331**	**3334**	**2579**	**2228**	**2288**	**2454**	**2478**	**2801**	**3065**	**3628**	**3695**	**2740**	**2048**	**1555**	**1195**	**662**	**457**	45755	3695	17
23	W																											
24	T																											
25	F																											
26	S																											
27	S																											
28	M																											
29	T																											
30	W																											
31	T																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
250	**140**	**127**	**217**	**462**	**1365**	**2617**	**3288**	**3261**	**2583**	**2314**	**2313**	**2457**	**2502**	**2808**	**3138**	**3578**	**3684**	**2653**	**2209**	**1664**	**1314**	**833**	**502**	**46279**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED (one way)
9	203	6	137	3684	8%	1.000	1.105	**AADT 41881**

STATION: **078101**

New York State Department of Transportation
Traffic Count Hourly Report

CR 21 - 04 NB

ROAD #: **0210** ROAD NAME: **CR 21**
DIRECTION: Northbound FACTOR GROUP: 30
STATE DIR CODE: 1 WK OF YR: 31
DATE OF COUNT: 08/02/2007
NOTES LANE 0: NORTHBOUND

COUNT TAKEN BY: ORG CODE: DOT INITIALS: ABR

FROM: **I495S**
REC. SERIAL #: 2225
PLACEMENT: 50' N/O I-495S
@ REF MARKER: NA
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS:

TO: **I495N**
FUNC. CLASS: 16
NHS: yes
JURIS: County
CC Stn:
BATCH ID: DOT-r10sw32

COUNTY: **Suffolk**
TOWN: **BROOKHAVEN**
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	W																											
2	T														308	353	480	551	455	289	193	160	95	72	81			
3	F	41	17	10	15	31	60	194	298	285	290	279	275	341	280	377	456	472	314	229	200	117	136	91	101	4909	472	16
4	S	47	22	20	17	19	35	83	113	155	176	199	187	236	243	209	253	215	191	173	151	125	81	77	90	3117	253	15
5	S	46	28	14	15	17	22	42	81	100	123	154	154	209	169	162	209	203	155	127	146	124	85	59	61	2505	209	12
6	M	34	7	17	16	22	76	187	276	288	251	259	246	344	315	326	473	469	296	219	175	129	102	62	72	4661	473	15
7	T	48	16	8	10	25	75	183	313	301	282	305	368	305	301	287	513	459	323	206	184	158	113	70	92	4945	513	15
8	W	34	13	5	9	30	77	175	277	297	260	221	286	337	278	337	490	470	334	224	168	178	127	75	79	4781	490	15
9	T	40	22	10	9	33	98	187	294	295	303	259	287	331	289	324	459	479	365	239	190	123	124	84	91	4935	479	16
10	F	42	25	5	15	30	74	159	293	330	256	248	267	306	258	278	440	428	280	214	164	125	83	93	87	4500	440	15
11	S	56	25	11	16	12	33	82	138	149	178	181	217	259	316	373	460	447	243	179	184	134	107	104	166	4070	460	15
12	S	57	32	15	20	9	16	50	74	96	135	200	268	280	305	434	331	312	247	170	159	245	186	67	78	3786	434	14
13	M	34	15	7	14	22	79	185	282	295	241	258	267	341	315	299	451	456	311	231	165	132	105	72	73	4650	456	16
14	T	48	21	5	11	26	79	197	327	284	315	253	299															
15	W																											
16	T																											
17	F																											
18	S																											
19	S																											
20	M																											
21	T																											
22	W																											
23	T																											
24	F																											
25	S																											
26	S																											
27	M																											
28	T																											
29	W																											
30	T																											
31	F																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

41	19	7	12	28	76	180	289	291	270	255	282	326	295	315	469	472	340	231	176	144	109	71	79	ADT 4777

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED (one way)
13	287	7	155	472	10%	0.981	1.115	**AADT 4284**

ROAD #: **0210** ROAD NAME: **CR 21** FROM: **I495S** TO: **I495N** COUNTY: **Suffolk**
STATION: **078101** STATE DIR CODE: **1** PLACEMENT: **50' N/O I-495S** **DATE OF COUNT: 08/02/2007**

New York State Department of Transportation
Traffic Count Hourly Report

CR 21 - 04 SB

ROAD #: **0210** ROAD NAME: **CR 21**
DIRECTION: Southbound FACTOR GROUP: 30
STATE DIR CODE: 2 WK OF YR: 31
DATE OF COUNT: 08/02/2007
NOTES LANE 0: SOUTHBOUND

COUNT TAKEN BY: ORG CODE: DOT INITIALS: ABR

FROM: **I495S**
REC. SERIAL #: 2151
PLACEMENT: 50' N/O I-495S
@ REF MARKER: NA
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS:

TO: **I495N**
FUNC. CLASS: 16
NHS: yes
JURIS: County
CC Stn:
BATCH ID: DOT-r10sw32

COUNTY: **Suffolk**
TOWN: **BROOKHAVEN**
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	W																											
2	T														**286**	**276**	**333**	**434**	**307**	**213**	**159**	**152**	**116**	**74**	**45**			
3	F	**24**	**9**	**12**	**15**	**19**	**62**	**212**	**297**	**374**	**309**	**225**	**244**	**286**	**287**	**301**	**318**	**367**	**284**	**200**	**134**	**103**	**76**	**92**	**65**	4315	374	8
4	S	**27**	**12**	**12**	**13**	**14**	**40**	**94**	**118**	**118**	**136**	**161**	**197**	**210**	**193**	**197**	**170**	**169**	**140**	**109**	**105**	**87**	**72**	**90**	**80**	2564	210	12
5	S	**46**	**17**	**10**	**13**	**11**	**11**	**54**	**63**	**88**	**93**	**144**	**161**	**170**	**175**	**187**	**151**	**143**	**134**	**121**	**152**	**151**	**96**	**69**	**41**	2301	187	14
6	M	**14**	**5**	**8**	**8**	**24**	**60**	**225**	**280**	**373**	**278**	**207**	**196**	**288**	**267**	**302**	**307**	**350**	**287**	**203**	**155**	**112**	**76**	**84**	**34**	4143	373	8
7	T	**21**	**10**	**11**	**11**	**17**	**69**	**235**	**325**	**450**	**292**	**261**	**257**	**310**	**265**	**279**	**333**	**354**	**298**	**179**	**157**	**124**	**90**	**68**	**40**	4456	450	8
8	W	**21**	**8**	**10**	**12**	**19**	**66**	**199**	**253**	**396**	**260**	**219**	**221**	**300**	**246**	**263**	**317**	**339**	**305**	**192**	**172**	**122**	**85**	**71**	**52**	4148	396	8
9	T	**23**	**18**	**10**	**11**	**21**	**77**	**245**	**288**	**399**	**255**	**249**	**233**	**265**	**272**	**318**	**295**	**356**	**299**	**206**	**158**	**139**	**97**	**86**	**53**	4373	399	8
10	F	**23**	**13**	**13**	**7**	**22**	**65**	**233**	**258**	**412**	**252**	**188**	**188**	**254**	**241**	**255**	**284**	**341**	**273**	**172**	**129**	**103**	**98**	**81**	**64**	3969	412	8
11	S	**33**	**10**	**8**	**11**	**18**	**33**	**104**	**125**	**128**	**140**	**184**	**214**	**238**	**254**	**228**	**302**	**289**	**189**	**183**	**139**	**134**	**94**	**91**	**80**	3229	302	15
12	S	**30**	**19**	**13**	**11**	**7**	**17**	**106**	**76**	**114**	**113**	**183**	**196**	**221**	**252**	**240**	**217**	**219**	**201**	**181**	**142**	**171**	**147**	**66**	**42**	2984	252	13
13	M	**18**	**10**	**8**	**6**	**28**	**67**	**205**	**290**	**361**	**270**	**209**	**207**	**261**	**282**	**294**	**292**	**332**	**301**	**199**	**131**	**123**	**71**	**89**	**29**	4083	361	8
14	T	**12**	**10**	**8**	**9**	**25**	**73**	**218**	**293**	**437**	**272**	**212**	**212**															
15	W																											
16	T																											
17	F																											
18	S																											
19	S																											
20	M																											
21	T																											
22	W																											
23	T																											
24	F																											
25	S																											
26	S																											
27	M																											
28	T																											
29	W																											
30	T																											
31	F																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

21	11	11	11	20	68	218	281	392	269	217	216	280	265	284	307	354	294	195	152	127	87	77	41	ADT 4198

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
13	287	7	155	392	9%	0.981	1.115

ESTIMATED (one way)

AADT
3765

APPENDIX L: BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

Intersections

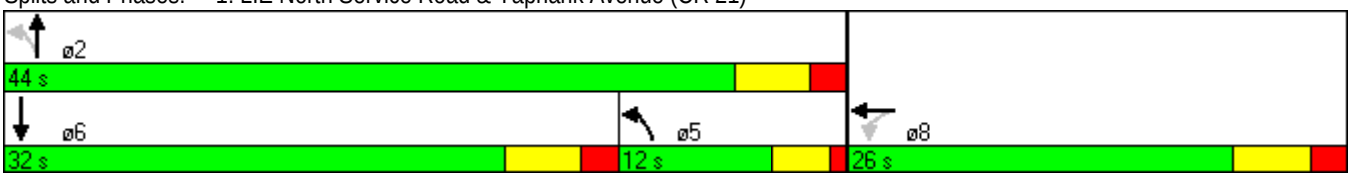
1. Yaphank Avenue (CR 21) at LIE North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road
14. Yaphank Avenue (CR 21) at Area A Main Driveway
15. LIE North Service Road at Area A Secondary Driveway

BUILD AM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	2	703	151	275
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	3.0	12.0	12.0
Minimum Split (s)	22.0	7.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	22.0	40.0	40.0	28.0
Actuated g/C Ratio	0.31	0.57	0.57	0.40
v/c Ratio	1.91dl	1.47	0.19	0.30
Control Delay	85.4	231.4	1.1	11.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	85.4	231.4	1.1	11.4
LOS	F	F	A	B
Approach Delay	85.4		190.6	11.4
Approach LOS	F		F	B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.47	
Intersection Signal Delay: 113.6	Intersection LOS: F
Intersection Capacity Utilization 121.3%	ICU Level of Service H
Analysis Period (min) 15	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

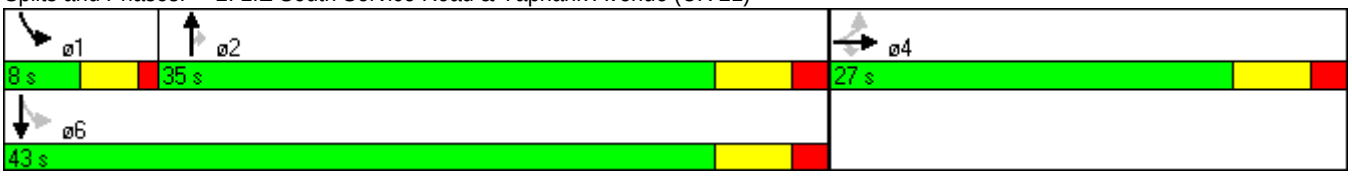


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	24	585	836	498	83	1077
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	3.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	7.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.0	23.0	32.6	32.6	39.0	39.0
Actuated g/C Ratio	0.33	0.33	0.47	0.47	0.56	0.56
v/c Ratio	0.10	1.25	1.08	0.55	0.48	0.66
Control Delay	17.0	149.7	79.0	3.8	10.9	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	17.0	149.7	79.0	3.8	10.9	4.8
LOS	B	F	E	A	B	A
Approach Delay	139.0		50.9			5.2
Approach LOS	F		D			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 51.7 Intersection LOS: D
Intersection Capacity Utilization 121.3% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	13	15	0	25	36	1442	83	113	1472	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.97	0.97	0.97	0.93	0.93	0.93
Hourly flow rate (vph)	2	0	15	18	0	29	37	1487	86	122	1583	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.81	0.81	0.81	0.81	0.81		0.81					
vC, conflicting volume	3416	3472	791	2611	3419	1487	1615			1572		
vC1, stage 1 conf vol	1826	1826		1561	1561							
vC2, stage 2 conf vol	1590	1646		1050	1858							
vCu, unblocked vol	3515	3585	265	2518	3519	1487	1285			1572		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	97	81	100	74	91			71		
cM capacity (veh/h)	1	20	592	92	52	113	433			415		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	18	47	25	1499	86	122	791	791	32
Volume Left	2	18	25	12	0	122	0	0	0
Volume Right	15	29	0	0	86	0	0	0	32
cSH	7	104	433	433	1700	415	1700	1700	1700
Volume to Capacity	2.38	0.45	0.09	0.09	0.05	0.29	0.47	0.47	0.02
Queue Length 95th (ft)	82	48	7	7	0	30	0	0	0
Control Delay (s)	1584.8	65.2	14.1	9.7	0.0	17.2	0.0	0.0	0.0
Lane LOS	F	F	B	A		C			
Approach Delay (s)	1584.8	65.2	9.2			1.2			
Approach LOS	F	F							

Intersection Summary			
Average Delay	14.1		
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	112	1386	15	33	1201
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.88	0.88	0.85	0.85
Hourly flow rate (vph)	26	132	1575	17	39	1413
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3066	1575			1592	
vC1, stage 1 conf vol	1575					
vC2, stage 2 conf vol	1491					
vCu, unblocked vol	3066	1575			1592	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	3			91	
cM capacity (veh/h)	126	135			412	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	158	1575	17	39	1413
Volume Left	26	0	0	39	0
Volume Right	132	0	17	0	0
cSH	134	1700	1700	412	1700
Volume to Capacity	1.18	0.93	0.01	0.09	0.83
Queue Length 95th (ft)	233	0	0	8	0
Control Delay (s)	198.6	0.0	0.0	14.6	0.0
Lane LOS	F			B	
Approach Delay (s)	198.6	0.0		0.4	
Approach LOS	F				

Intersection Summary			
Average Delay	10.0		
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	415	73	141	1002	1089	142
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	483	85	160	1139	1224	160
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2683	1224	1224			
vC1, stage 1 conf vol	1224					
vC2, stage 2 conf vol	1459					
vCu, unblocked vol	2683	1224	1224			
tC, single (s)	6.6	6.4	4.2			
tC, 2 stage (s)	5.6					
tF (s)	3.7	3.5	2.3			
p0 queue free %	0	58	70			
cM capacity (veh/h)	117	202	536			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	483	85	160	1139	1224	160
Volume Left	483	0	160	0	0	0
Volume Right	0	85	0	0	0	160
cSH	117	202	536	1700	1700	1700
Volume to Capacity	4.12	0.42	0.30	0.67	0.72	0.09
Queue Length 95th (ft)	Err	48	31	0	0	0
Control Delay (s)	Err	35.1	14.5	0.0	0.0	0.0
Lane LOS	F	E	B			
Approach Delay (s)	8508.5		1.8		0.0	
Approach LOS	F					

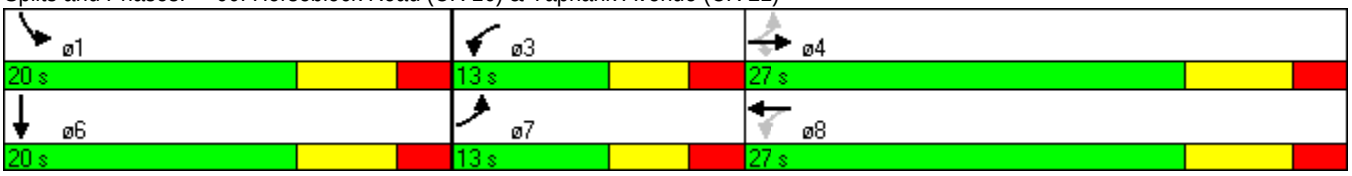
Intersection Summary			
Average Delay	1486.5		
Intersection Capacity Utilization	98.1%	ICU Level of Service	F
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	182	495	32	41	1483	257	111
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	1.0	1.0	3.0	1.0	4.0	8.0
Minimum Split (s)	10.0	8.3	8.3	10.0	8.3	11.0	15.0
Total Split (s)	13.0	27.0	27.0	13.0	27.0	20.0	20.0
Total Split (%)	21.7%	45.0%	45.0%	21.7%	45.0%	33.3%	33.3%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	35.0	31.4	31.4	31.9	23.7	15.4	15.4
Actuated g/C Ratio	0.58	0.52	0.52	0.53	0.40	0.26	0.26
v/c Ratio	0.57	0.31	0.04	0.08	1.12	0.71	0.28
Control Delay	15.4	10.4	4.9	5.5	84.4	31.1	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	10.4	4.9	5.5	84.4	31.1	19.5
LOS	B	B	A	A	F	C	B
Approach Delay		11.5			82.3		27.6
Approach LOS		B			F		C

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 54.0 Intersection LOS: D
Intersection Capacity Utilization 75.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	709	1483	0	0	733
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	0	797	1561	0	0	862
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.61				0.61	0.61
vC, conflicting volume	1561				1760	781
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	641				968	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	573				153	662

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	199	199	199	199	781	781	862
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	862
cSH	1700	1700	1700	1700	1700	1700	662
Volume to Capacity	0.12	0.12	0.12	0.12	0.46	0.46	1.30
Queue Length 95th (ft)	0	0	0	0	0	0	862
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	167.4
Lane LOS							F
Approach Delay (s)	0.0				0.0		167.4
Approach LOS							F

Intersection Summary			
Average Delay	44.8		
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	44	1431	1091	67	681
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	23.3	8.0	23.3
Total Split (s)	26.0	26.0	26.0	8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	13.3%	56.7%
Yellow Time (s)	3.5	3.5	4.8	3.5	4.8
All-Red Time (s)	0.5	0.5	2.5	0.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	7.3	4.0	7.3
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.0	22.0	21.9	30.0	26.7
Actuated g/C Ratio	0.37	0.37	0.36	0.50	0.44
v/c Ratio	0.08	2.32	1.00	0.31	0.51
Control Delay	12.9	615.9	51.2	11.6	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	615.9	51.2	11.6	13.5
LOS	B	F	D	B	B
Approach Delay	598.0		51.2		13.4
Approach LOS	F		D		B

Intersection Summary

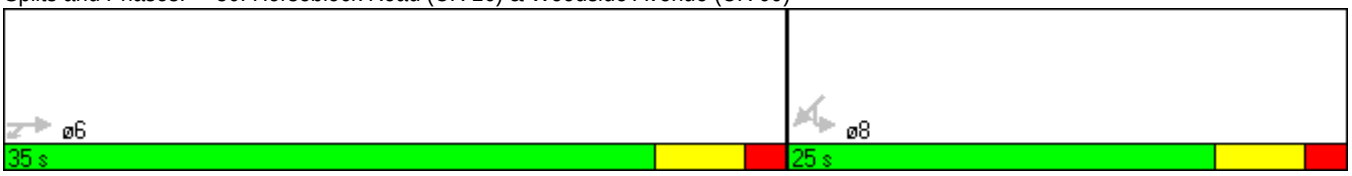
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.32
Intersection Signal Delay: 284.3 Intersection LOS: F
Intersection Capacity Utilization 130.3% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	658	19	279
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	35.0	35.0	25.0
Total Split (%)	58.3%	58.3%	41.7%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	38.9	38.9	13.1
Actuated g/C Ratio	0.65	0.65	0.22
v/c Ratio	0.33	0.02	0.46
Control Delay	5.5	2.4	20.7
Queue Delay	0.0	0.0	0.0
Total Delay	5.5	2.4	20.7
LOS	A	A	C
Approach Delay	5.4		20.7
Approach LOS	A		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 33.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

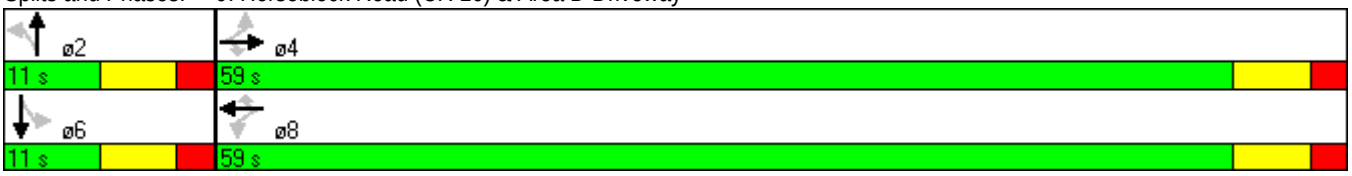


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	468	499	51	44	1100	1018	44	0	183	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	10.0	7.0	7.0
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	11.0	11.0	11.0	11.0
Total Split (%)	84.3%	84.3%	84.3%	84.3%	84.3%	84.3%	15.7%	15.7%	15.7%	15.7%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	7.0	7.0	7.0	7.0
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10
v/c Ratio	2.30	0.20	0.05	0.07	0.79	0.75	0.48	0.08	1.46	0.52
Control Delay	616.6	2.1	0.6	2.0	9.5	3.9	46.6	0.3	273.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	616.6	2.1	0.6	2.0	9.5	3.9	46.6	0.3	273.1	12.7
LOS	F	A	A	A	A	A	D	A	F	B
Approach Delay		281.3			6.6			25.4		158.2
Approach LOS		F			A			C		F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.30
Intersection Signal Delay: 100.3 Intersection LOS: F
Intersection Capacity Utilization 110.6% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Driveway

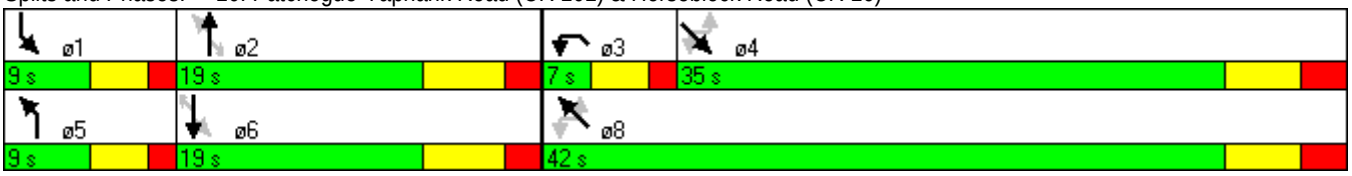


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	28	638	133	98	667	64	74	883	13	78	549	87
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	16.2	16.2	8.5	16.2	16.2	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	19.0	19.0	9.0	19.0	19.0	35.0	35.0	35.0	7.0	42.0	42.0
Total Split (%)	12.9%	27.1%	27.1%	12.9%	27.1%	27.1%	50.0%	50.0%	50.0%	10.0%	60.0%	60.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.8	16.8	16.8	22.4	20.4	20.4	32.4	32.4	32.4	38.0	38.0	38.0
Actuated g/C Ratio	0.30	0.24	0.24	0.32	0.29	0.29	0.46	0.46	0.46	0.54	0.54	0.54
v/c Ratio	0.15	0.92	0.33	0.52	0.78	0.15	0.40	1.39	0.02	0.55	0.70	0.12
Control Delay	17.3	46.6	6.9	26.3	32.6	7.4	8.5	197.3	2.2	22.6	17.1	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	46.6	6.9	26.3	32.6	7.4	8.5	197.3	2.2	22.6	17.1	2.3
LOS	B	D	A	C	C	A	A	F	A	C	B	A
Approach Delay		39.0			29.9			180.3			15.9	
Approach LOS		D			C			F			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.39
Intersection Signal Delay: 73.1 Intersection LOS: E
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

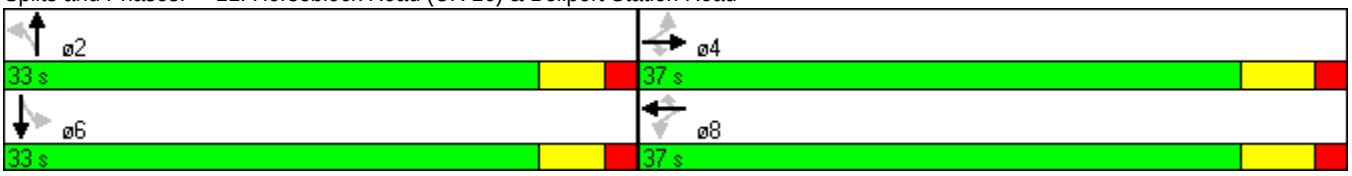


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	14	797	195	2	563	51	243	115	89	188
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	33.0	33.0	33.0	33.0
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	47.1%	47.1%	47.1%	47.1%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		34.1	34.1		34.1	34.1		27.9		27.9
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.40		0.40
v/c Ratio		1.18	0.30		1.06	0.08		0.92		0.53
Control Delay		114.6	6.6		78.2	13.8		49.1		18.7
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		114.6	6.6		78.2	13.8		49.1		18.7
LOS		F	A		E	B		D		B
Approach Delay		93.7			72.9			49.1		18.7
Approach LOS		F			E			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 71.1 Intersection LOS: E
Intersection Capacity Utilization 99.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

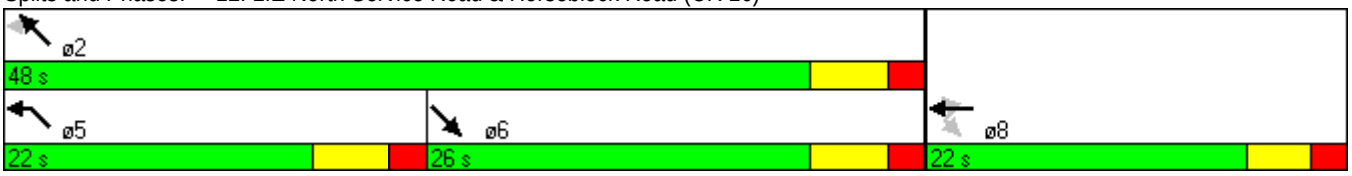


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	404	124	618	550	492
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	20.0	4.0	20.0
Minimum Split (s)	21.3	21.3	26.0	10.0	26.0
Total Split (s)	22.0	22.0	26.0	22.0	48.0
Total Split (%)	31.4%	31.4%	37.1%	31.4%	68.6%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.7	17.7	22.0	44.3	44.3
Actuated g/C Ratio	0.25	0.25	0.31	0.63	0.63
v/c Ratio	0.83	0.29	0.69	1.10	0.48
Control Delay	33.9	5.9	24.0	82.3	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	5.9	24.0	82.3	14.1
LOS	C	A	C	F	B
Approach Delay	29.5		24.0		50.1
Approach LOS	C		C		D

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 36.1 Intersection LOS: D
Intersection Capacity Utilization 78.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

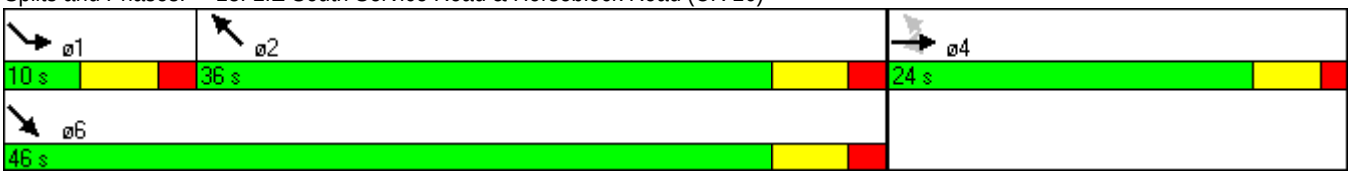


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	99	72	877	269	451	904
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	20.0	20.0	6.0	42.0	32.0
Actuated g/C Ratio	0.29	0.29	0.29	0.09	0.60	0.46
v/c Ratio	0.20	0.15	1.54	1.11	0.26	1.14
Control Delay	20.2	19.7	269.3	114.4	5.7	94.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	19.7	269.3	114.4	5.7	94.0
LOS	C	B	F	F	A	F
Approach Delay		228.7			46.3	94.0
Approach LOS		F			D	F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.54
Intersection Signal Delay: 134.8 Intersection LOS: F
Intersection Capacity Utilization 78.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	65	46	1381	87	39	1550
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	50	1501	95	42	1685
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked	0.76					
vC, conflicting volume	2428	1501			1596	
vC1, stage 1 conf vol	1501					
vC2, stage 2 conf vol	927					
vCu, unblocked vol	2252	1501			1596	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	55	55			90	
cM capacity (veh/h)	157	111			407	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	121	1501	95	42	842	842
Volume Left	71	0	0	42	0	0
Volume Right	50	0	95	0	0	0
cSH	134	1700	1700	407	1700	1700
Volume to Capacity	0.90	0.88	0.06	0.10	0.50	0.50
Queue Length 95th (ft)	149	0	0	9	0	0
Control Delay (s)	116.2	0.0	0.0	14.9	0.0	0.0
Lane LOS	F			B		
Approach Delay (s)	116.2	0.0		0.4		
Approach LOS	F					

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	557	47	0	0	0	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	605	51	0	0	0	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	419					
pX, platoon unblocked						
vC, conflicting volume			657		605	605
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			657		605	605
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			931		461	497

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	605	51	20
Volume Left	0	0	0
Volume Right	0	51	20
cSH	1700	1700	497
Volume to Capacity	0.36	0.03	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.0	12.5
Lane LOS			B
Approach Delay (s)	0.0		12.5
Approach LOS			B

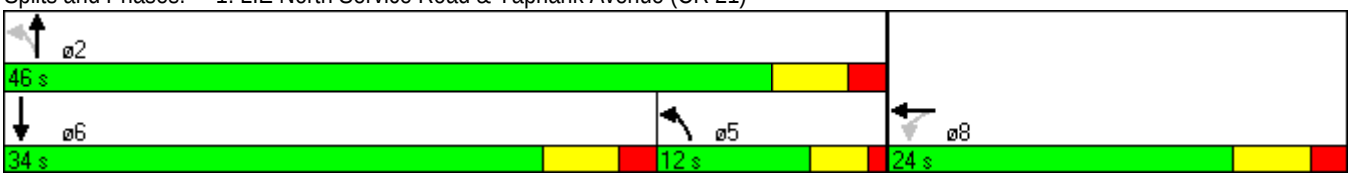
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

BUILD MIDDAY PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	0	660	271	199
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	42.0	42.0	30.0
Actuated g/C Ratio	0.29	0.60	0.60	0.43
v/c Ratio	1.69dl	1.12	0.32	0.19
Control Delay	52.1	80.2	2.2	10.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	52.1	80.2	2.2	10.0
LOS	D	F	A	A
Approach Delay	52.1		57.5	10.0
Approach LOS	D		E	A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 49.0	Intersection LOS: D
Intersection Capacity Utilization 95.3%	ICU Level of Service F
Analysis Period (min) 15	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

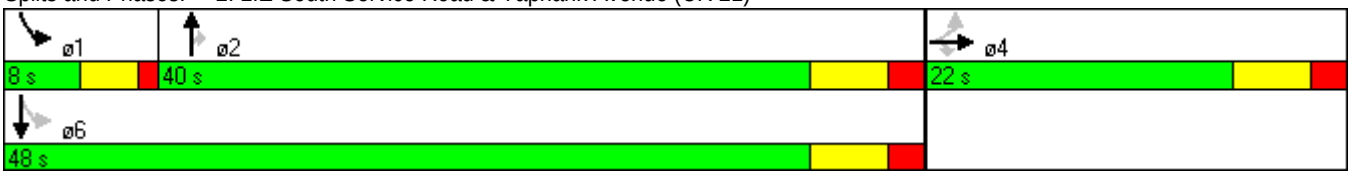


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	411	956	866	347	269	604
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.0	18.0	36.0	36.0	44.0	44.0
Actuated g/C Ratio	0.26	0.26	0.51	0.51	0.63	0.63
v/c Ratio	1.03	1.62	1.01	0.46	1.36	0.29
Control Delay	77.0	306.7	50.7	9.7	203.2	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.0	306.7	50.7	9.7	203.2	1.1
LOS	E	F	D	A	F	A
Approach Delay	231.1		38.9			63.4
Approach LOS	F		D			E

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.62
Intersection Signal Delay: 122.1 Intersection LOS: F
Intersection Capacity Utilization 95.3% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	0	42	19	2	47	15	1357	32	45	1074	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.88	0.88	0.88	0.92	0.92	0.92
Hourly flow rate (vph)	44	0	49	22	2	55	17	1542	36	49	1167	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	2898	2878	584	2307	2865	1542	1191			1578		
vC1, stage 1 conf vol	1265	1265		1576	1576							
vC2, stage 2 conf vol	1633	1612		731	1289							
vCu, unblocked vol	2898	2878	584	2307	2865	1542	1191			1578		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	89	78	98	47	97			88		
cM capacity (veh/h)	3	93	455	100	118	104	582			413		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	93	80	17	1542	36	49	584	584	24
Volume Left	44	22	17	0	0	49	0	0	0
Volume Right	49	55	0	0	36	0	0	0	24
cSH	6	103	582	1700	1700	413	1700	1700	1700
Volume to Capacity	15.01	0.77	0.03	0.91	0.02	0.12	0.34	0.34	0.01
Queue Length 95th (ft)	Err	105	2	0	0	10	0	0	0
Control Delay (s)	Err	110.3	11.4	0.0	0.0	14.9	0.0	0.0	0.0
Lane LOS	F	F	B			B			
Approach Delay (s)	Err	110.3	0.1			0.6			
Approach LOS	F	F							

Intersection Summary			
Average Delay	312.1		
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	52	1396	13	45	921
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	15	61	1485	14	51	1035
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2621	1485			1499	
vC1, stage 1 conf vol	1485					
vC2, stage 2 conf vol	1136					
vCu, unblocked vol	2621	1485			1499	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	60			89	
cM capacity (veh/h)	159	153			447	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	76	1485	14	51	1035
Volume Left	15	0	0	51	0
Volume Right	61	0	14	0	0
cSH	154	1700	1700	447	1700
Volume to Capacity	0.50	0.87	0.01	0.11	0.61
Queue Length 95th (ft)	59	0	0	9	0
Control Delay (s)	49.3	0.0	0.0	14.1	0.0
Lane LOS	E			B	
Approach Delay (s)	49.3	0.0		0.7	
Approach LOS	E				

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	433	115	120	993	517	410
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	509	135	141	1168	608	482
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2059	608	608			
vC1, stage 1 conf vol	608					
vC2, stage 2 conf vol	1451					
vCu, unblocked vol	2059	608	608			
tC, single (s)	6.5	6.3	4.3			
tC, 2 stage (s)	5.5					
tF (s)	3.6	3.4	2.3			
p0 queue free %	0	71	84			
cM capacity (veh/h)	161	474	906			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	509	135	141	1168	608	482
Volume Left	509	0	141	0	0	0
Volume Right	0	135	0	0	0	482
cSH	161	474	906	1700	1700	1700
Volume to Capacity	3.17	0.29	0.16	0.69	0.36	0.28
Queue Length 95th (ft)	Err	29	14	0	0	0
Control Delay (s)	Err	15.6	9.7	0.0	0.0	0.0
Lane LOS	F	C	A			
Approach Delay (s)	7903.9		1.0		0.0	
Approach LOS	F					

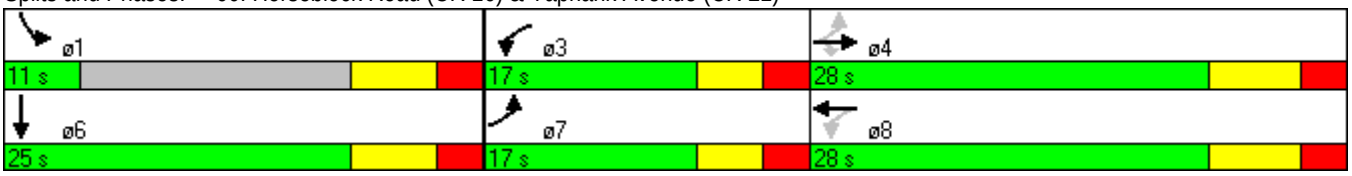
Intersection Summary			
Average Delay	1674.1		
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	249	618	36	79	1074	359	125
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	11.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	15.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	40.6	30.4	30.4	34.0	24.9	20.8	20.8
Actuated g/C Ratio	0.58	0.43	0.43	0.49	0.36	0.30	0.30
v/c Ratio	0.74	0.49	0.06	0.20	0.93	0.88	0.65
Control Delay	30.1	15.3	4.6	8.1	38.3	46.7	21.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	15.3	4.6	8.1	38.3	46.7	21.0
LOS	C	B	A	A	D	D	C
Approach Delay		19.0			36.2		34.8
Approach LOS		B			D		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 30.1 Intersection LOS: C
Intersection Capacity Utilization 73.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	903	1074	0	0	184
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.91	0.91
Hourly flow rate (vph)	0	961	1096	0	0	202
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.69				0.69	0.69
vC, conflicting volume	1096				1336	548
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	250				596	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	73
cM capacity (veh/h)	909				301	751

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	240	240	240	240	548	548	202
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	202
cSH	1700	1700	1700	1700	1700	1700	751
Volume to Capacity	0.14	0.14	0.14	0.14	0.32	0.32	0.27
Queue Length 95th (ft)	0	0	0	0	0	0	27
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.6
Lane LOS							B
Approach Delay (s)	0.0				0.0		11.6
Approach LOS							B

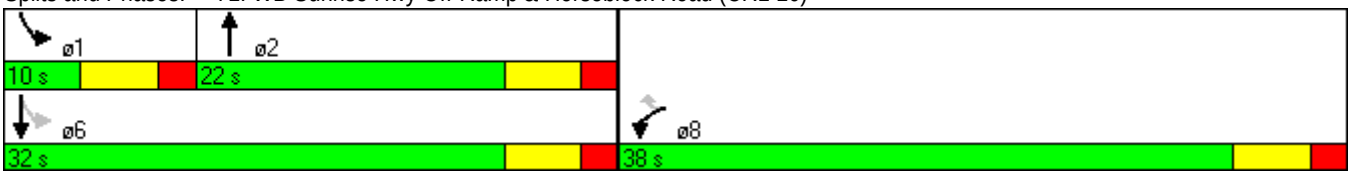
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	143	1249	688	139	847
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	10.0	22.0
Total Split (s)	38.0	38.0	22.0	10.0	32.0
Total Split (%)	54.3%	54.3%	31.4%	14.3%	45.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	32.0	32.0	16.0	26.0	26.0
Actuated g/C Ratio	0.46	0.46	0.23	0.37	0.37
v/c Ratio	0.21	1.71	1.05	0.77	0.74
Control Delay	12.3	342.3	76.4	45.4	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	342.3	76.4	45.4	23.5
LOS	B	F	E	D	C
Approach Delay	308.5		76.4		26.6
Approach LOS	F		E		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.71
Intersection Signal Delay: 164.1 Intersection LOS: F
Intersection Capacity Utilization 108.6% ICU Level of Service G
Analysis Period (min) 15

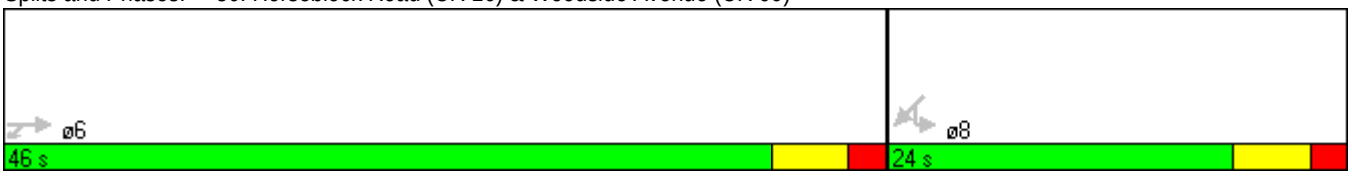
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	532	21	530
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	44.1	44.1	17.9
Actuated g/C Ratio	0.63	0.63	0.26
v/c Ratio	0.27	0.03	0.64
Control Delay	4.0	1.2	30.1
Queue Delay	0.0	0.0	0.0
Total Delay	4.0	1.2	30.1
LOS	A	A	C
Approach Delay	3.9		30.1
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 36.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

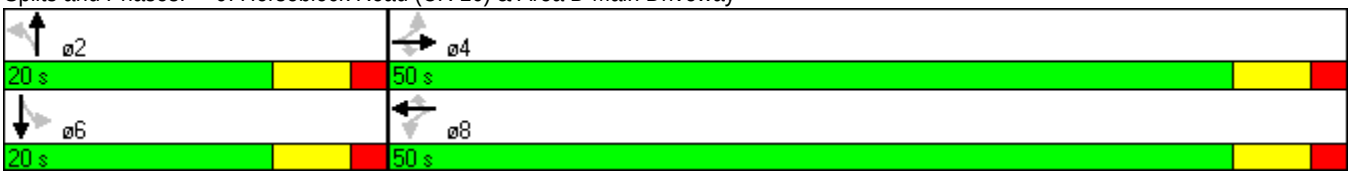


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	85	723	82	75	665	155	72	0	175	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	7.0	7.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	20.0	20.0	20.0	20.0
Total Split (%)	71.4%	71.4%	71.4%	71.4%	71.4%	71.4%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	46.0	46.0	46.0	46.0	46.0	46.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23
v/c Ratio	0.27	0.34	0.08	0.22	0.60	0.15	0.31	0.20	0.65	0.25
Control Delay	5.0	3.5	0.4	7.9	14.6	2.8	26.2	0.8	36.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	3.5	0.4	7.9	14.6	2.8	26.2	0.8	36.7	1.1
LOS	A	A	A	A	B	A	C	A	D	A
Approach Delay		3.4			12.0			12.0		21.6
Approach LOS		A			B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 9.9 Intersection LOS: A
Intersection Capacity Utilization 68.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

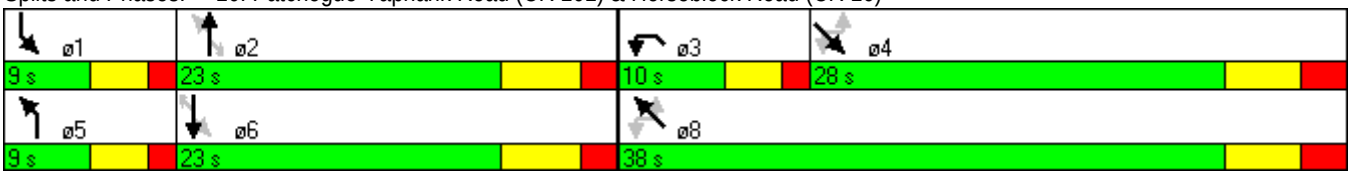


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	30	639	90	53	536	70	38	514	90	179	480	67
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.0	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	28.0	28.0	28.0	10.0	38.0	38.0
Total Split (%)	12.9%	32.9%	32.9%	12.9%	32.9%	32.9%	40.0%	40.0%	40.0%	14.3%	54.3%	54.3%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.6	22.6	22.6	26.4	24.4	24.4	24.0	24.0	24.0	34.0	34.0	34.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.35	0.35	0.34	0.34	0.34	0.49	0.49	0.49
v/c Ratio	0.10	0.61	0.18	0.22	0.49	0.13	0.21	1.05	0.18	0.89	0.69	0.11
Control Delay	13.8	24.0	6.0	15.4	20.8	6.3	7.9	56.0	1.4	53.6	15.9	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	24.0	6.0	15.4	20.8	6.3	7.9	56.0	1.4	53.6	15.9	2.5
LOS	B	C	A	B	C	A	A	E	A	D	B	A
Approach Delay		21.5			18.8			45.5			24.0	
Approach LOS		C			B			D			C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 27.0 Intersection LOS: C
Intersection Capacity Utilization 71.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

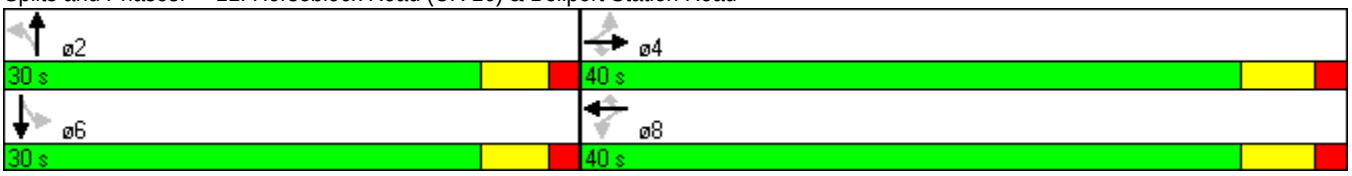


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	18	592	297	11	658	32	346	160	55	121
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.92	0.38		0.96	0.06		1.26		0.36
Control Delay		40.3	6.7		41.6	9.3		158.3		17.3
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		40.3	6.7		41.6	9.3		158.3		17.3
LOS		D	A		D	A		F		B
Approach Delay		29.2			40.1			158.3		17.3
Approach LOS		C			D			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 61.0 Intersection LOS: E
Intersection Capacity Utilization 95.0% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

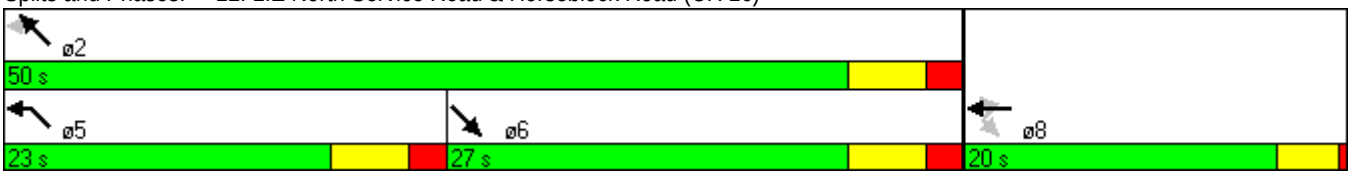


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	257	118	839	520	677
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	10.0	22.0
Total Split (s)	20.0	20.0	27.0	23.0	50.0
Total Split (%)	28.6%	28.6%	38.6%	32.9%	71.4%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.7	14.7	23.9	47.3	47.3
Actuated g/C Ratio	0.21	0.21	0.34	0.68	0.68
v/c Ratio	0.73	0.32	0.75	0.93	0.58
Control Delay	31.8	6.9	24.8	29.1	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	6.9	24.8	29.1	13.2
LOS	C	A	C	C	B
Approach Delay	26.9		24.8		20.1
Approach LOS	C		C		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 79.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

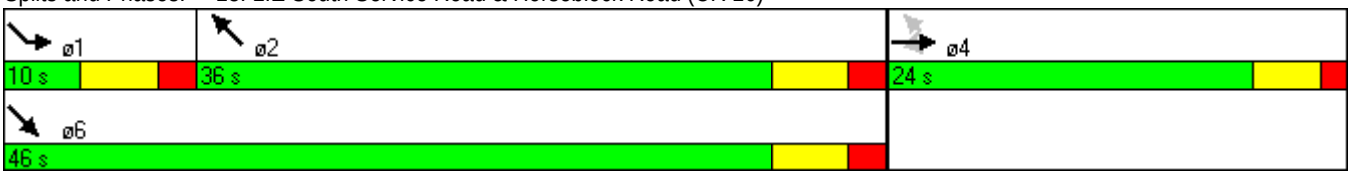


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	137	99	476	308	663	952
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.7	18.7	18.7	7.3	43.3	32.0
Actuated g/C Ratio	0.27	0.27	0.27	0.10	0.62	0.46
v/c Ratio	0.27	0.21	0.91	0.97	0.34	1.27
Control Delay	21.2	20.3	37.2	73.7	5.3	151.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	20.3	37.2	73.7	5.3	151.3
LOS	C	C	D	E	A	F
Approach Delay		31.8			27.0	151.3
Approach LOS		C			C	F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 75.5 Intersection LOS: E
Intersection Capacity Utilization 79.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	199	170	864	559	651	916
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	216	185	939	608	708	996
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked						
vC, conflicting volume	2852	939			1547	
vC1, stage 1 conf vol	939					
vC2, stage 2 conf vol	1913					
vCu, unblocked vol	2852	939			1547	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	30			0	
cM capacity (veh/h)	0	265			425	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	401	939	608	708	498	498
Volume Left	216	0	0	708	0	0
Volume Right	185	0	608	0	0	0
cSH	0	1700	1700	425	1700	1700
Volume to Capacity	Err	0.55	0.36	1.67	0.29	0.29
Queue Length 95th (ft)	Err	0	0	1043	0	0
Control Delay (s)	Err	0.0	0.0	332.9	0.0	0.0
Lane LOS	F			F		
Approach Delay (s)	Err	0.0		138.3		
Approach LOS	F					

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	113.0%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	421	600	0	0	0	55
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	458	652	0	0	0	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	458					
pX, platoon unblocked						
vC, conflicting volume			1110		458	458
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1110		458	458
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	90
cM capacity (veh/h)			629		561	603

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	458	652	60
Volume Left	0	0	0
Volume Right	0	652	60
cSH	1700	1700	603
Volume to Capacity	0.27	0.38	0.10
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.0	11.6
Lane LOS			B
Approach Delay (s)	0.0		11.6
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

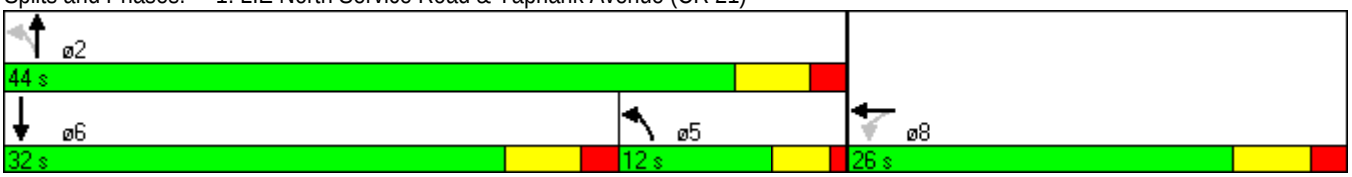
BUILD PM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	7	1274	319	227
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	20.7	41.3	41.3	29.3
Actuated g/C Ratio	0.30	0.59	0.59	0.42
v/c Ratio	1.15dl	2.11	0.37	0.18
Control Delay	26.4	516.7	0.8	11.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.4	516.7	0.8	11.9
LOS	C	F	A	B
Approach Delay	26.4		413.4	11.9
Approach LOS	C		F	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.11
Intersection Signal Delay: 276.9 Intersection LOS: F
Intersection Capacity Utilization 108.5% ICU Level of Service G
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

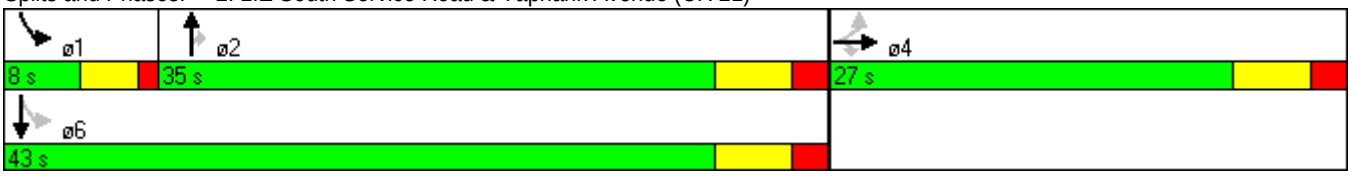


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	74	864	1538	1051	152	669
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.0	23.0	31.0	31.0	39.0	39.0
Actuated g/C Ratio	0.33	0.33	0.44	0.44	0.56	0.56
v/c Ratio	0.32	1.58	2.27	1.19	0.77	0.37
Control Delay	19.5	288.7	592.7	109.9	35.9	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	288.7	592.7	109.9	35.9	2.8
LOS	B	F	F	F	D	A
Approach Delay	246.7		396.7			8.9
Approach LOS	F		F			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.27
Intersection Signal Delay: 295.9 Intersection LOS: F
Intersection Capacity Utilization 108.5% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	0	28	22	0	47	14	1707	18	13	2051	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.59	0.59	0.59	0.43	0.43	0.43	0.91	0.91	0.91	0.97	0.97	0.97
Hourly flow rate (vph)	31	0	47	51	0	109	15	1876	20	13	2114	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.95	0.95	0.95	0.95	0.95		0.95					
vC, conflicting volume	4157	4068	1057	3038	4055	1876	2122			1896		
vC1, stage 1 conf vol	2141	2141		1907	1907							
vC2, stage 2 conf vol	2016	1926		1131	2148							
vCu, unblocked vol	4220	4125	952	3040	4112	1876	2074			1896		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	81	13	100	0	94			96		
cM capacity (veh/h)	0	58	246	59	54	61	251			311		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	78	160	15	1876	20	13	1057	1057	7
Volume Left	31	51	15	0	0	13	0	0	0
Volume Right	47	109	0	0	20	0	0	0	7
cSH	0	61	251	1700	1700	311	1700	1700	1700
Volume to Capacity	Err	2.65	0.06	1.10	0.01	0.04	0.62	0.62	0.00
Queue Length 95th (ft)	Err	405	5	0	0	3	0	0	0
Control Delay (s)	Err	893.1	20.3	0.0	0.0	17.1	0.0	0.0	0.0
Lane LOS	F	F	C			C			
Approach Delay (s)	Err	893.1	0.2			0.1			
Approach LOS	F	F							

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	34	1622	14	99	1703
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	7	41	1763	15	105	1812
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3785	1763			1778	
vC1, stage 1 conf vol	1763					
vC2, stage 2 conf vol	2022					
vCu, unblocked vol	3785	1763			1778	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	61			70	
cM capacity (veh/h)	66	104			349	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	1763	15	105	1812
Volume Left	7	0	0	105	0
Volume Right	41	0	15	0	0
cSH	96	1700	1700	349	1700
Volume to Capacity	0.49	1.04	0.01	0.30	1.07
Queue Length 95th (ft)	54	0	0	31	0
Control Delay (s)	74.3	0.0	0.0	19.7	0.0
Lane LOS	F			C	
Approach Delay (s)	74.3	0.0		1.1	
Approach LOS	F				

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	355	104	91	1293	1342	390
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	418	122	103	1469	1491	433
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3167	1491	1491			
vC1, stage 1 conf vol	1491					
vC2, stage 2 conf vol	1676					
vCu, unblocked vol	3167	1491	1491			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.3			
p0 queue free %	0	19	76			
cM capacity (veh/h)	102	150	430			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	418	122	103	1469	1491	433
Volume Left	418	0	103	0	0	0
Volume Right	0	122	0	0	0	433
cSH	102	150	430	1700	1700	1700
Volume to Capacity	4.11	0.81	0.24	0.86	0.88	0.25
Queue Length 95th (ft)	Err	131	23	0	0	0
Control Delay (s)	Err	89.9	16.0	0.0	0.0	0.0
Lane LOS	F	F	C			
Approach Delay (s)	7753.8		1.1		0.0	
Approach LOS	F					

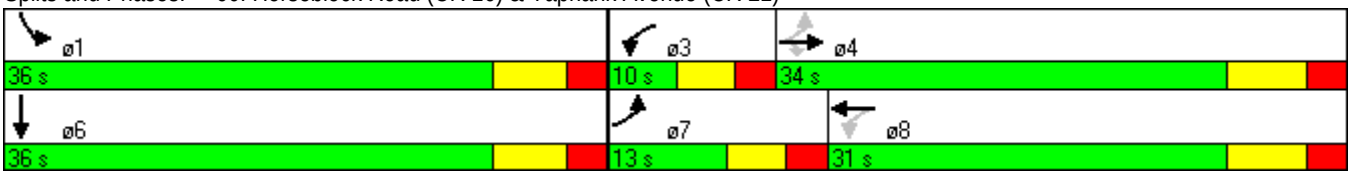
Intersection Summary			
Average Delay	1037.5		
Intersection Capacity Utilization	102.0%	ICU Level of Service	G
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	644	1766	44	29	728	814	458
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	13.0	34.0	34.0	10.0	31.0	36.0	36.0
Total Split (%)	16.3%	42.5%	42.5%	12.5%	38.8%	45.0%	45.0%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	39.6	36.0	36.0	33.0	27.0	32.0	32.0
Actuated g/C Ratio	0.50	0.45	0.45	0.41	0.34	0.40	0.40
v/c Ratio	2.47	1.33	0.07	0.15	0.65	1.37	0.71
Control Delay	679.3	172.0	5.3	12.3	25.6	199.7	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	679.3	172.0	5.3	12.3	25.6	199.7	26.6
LOS	F	F	A	B	C	F	C
Approach Delay		302.0			25.1		137.3
Approach LOS		F			C		F

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 37 (46%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.47
Intersection Signal Delay: 211.9 Intersection LOS: F
Intersection Capacity Utilization 110.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	2454	728	0	0	435
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	2727	809	0	0	483
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.82				0.82	0.82
vC, conflicting volume	809				1491	404
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	313				1149	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	45
cM capacity (veh/h)	1015				156	884

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	682	682	682	682	404	404	483
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	483
cSH	1700	1700	1700	1700	1700	1700	884
Volume to Capacity	0.40	0.40	0.40	0.40	0.24	0.24	0.55
Queue Length 95th (ft)	0	0	0	0	0	0	85
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	13.9
Lane LOS							B
Approach Delay (s)	0.0				0.0		13.9
Approach LOS							B

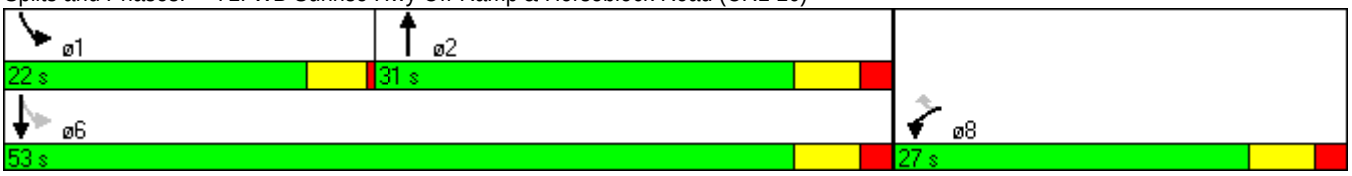
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	69	766	247	279	2197
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	8.0	22.0
Total Split (s)	27.0	27.0	31.0	22.0	53.0
Total Split (%)	33.8%	33.8%	38.8%	27.5%	66.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.0	2.0	2.0	0.5	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	4.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.1	18.1	32.8	51.9	49.9
Actuated g/C Ratio	0.23	0.23	0.41	0.65	0.62
v/c Ratio	0.19	0.95	0.55	0.69	1.11
Control Delay	24.6	28.0	7.7	17.5	73.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	28.0	7.7	17.5	73.9
LOS	C	C	A	B	E
Approach Delay	27.7		7.7		67.5
Approach LOS	C		A		E

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 47.7 Intersection LOS: D
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15

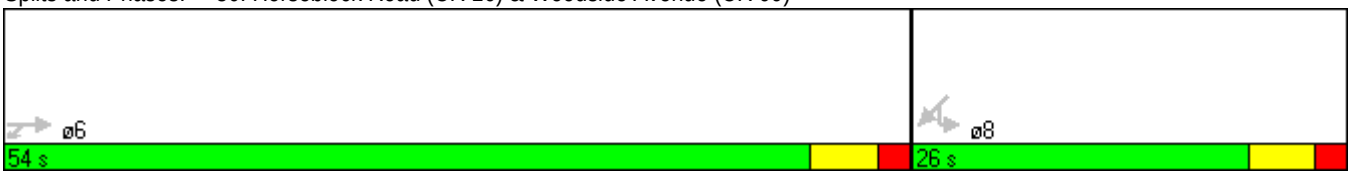
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	841	14	517
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	50.7	50.7	21.3
Actuated g/C Ratio	0.63	0.63	0.27
v/c Ratio	0.43	0.02	0.79
Control Delay	3.7	0.6	32.2
Queue Delay	0.0	0.0	0.0
Total Delay	3.7	0.6	32.2
LOS	A	A	C
Approach Delay	3.6		32.2
Approach LOS	A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 47.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

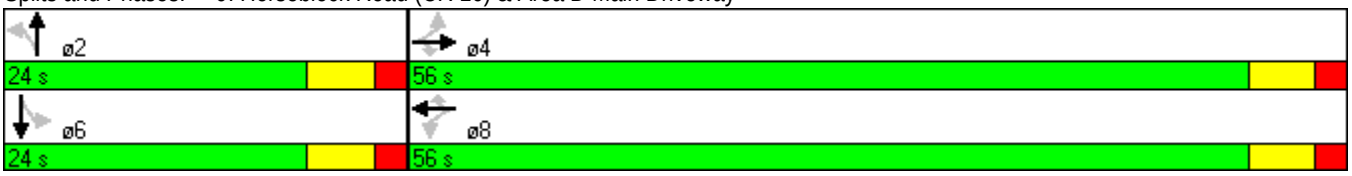


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	132	1219	3	3	828	254	21	0	1084	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	56.0	56.0	56.0	56.0	56.0	56.0	24.0	24.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	52.0	52.0	52.0	52.0	52.0	52.0	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25
v/c Ratio	0.72	0.62	0.00	0.02	0.74	0.25	0.27	0.07	3.42	1.24
Control Delay	30.1	8.3	3.0	6.3	23.1	5.2	33.0	2.8	1113.3	144.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	8.3	3.0	6.3	23.1	5.2	33.0	2.8	1113.3	144.8
LOS	C	A	A	A	C	A	C	A	F	F
Approach Delay		10.4			18.9			16.8		767.5
Approach LOS		B			B			B		F

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 6 (8%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 3.42
Intersection Signal Delay: 310.4 Intersection LOS: F
Intersection Capacity Utilization 127.6% ICU Level of Service H
Analysis Period (min) 15

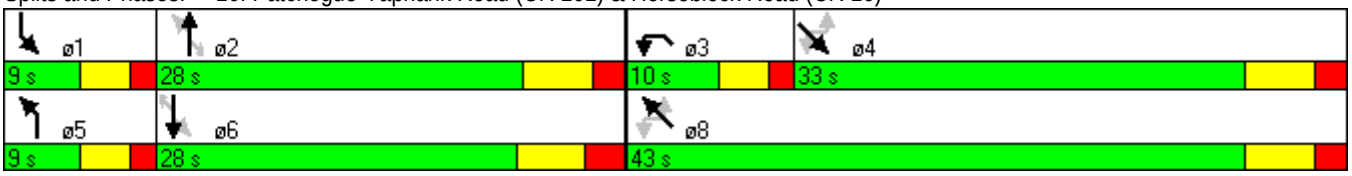
Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	40	891	56	80	742	72	19	714	95	190	976	164
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	28.0	28.0	9.0	28.0	28.0	33.0	33.0	33.0	10.0	43.0	43.0
Total Split (%)	11.3%	35.0%	35.0%	11.3%	35.0%	35.0%	41.3%	41.3%	41.3%	12.5%	53.8%	53.8%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.0	4.0	4.2	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	1.5	2.0	2.0	1.5	2.5	2.5	2.0	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.5	-2.5	-2.2	-2.2	-2.2	-0.5	-2.2	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.8	25.8	25.8	30.6	27.6	27.6	29.0	29.0	29.0	39.0	39.0	39.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.34	0.34	0.36	0.36	0.36	0.49	0.49	0.49
v/c Ratio	0.24	0.95	0.13	0.47	0.73	0.15	0.24	1.32	0.18	1.07	1.34	0.23
Control Delay	17.5	46.5	6.6	23.0	28.6	5.9	14.7	168.6	4.4	103.2	184.9	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	46.5	6.6	23.0	28.6	5.9	14.7	168.6	4.4	103.2	184.9	2.7
LOS	B	D	A	C	C	A	B	F	A	F	F	A
Approach Delay		43.1			26.3			146.3			150.8	
Approach LOS		D			C			F			F	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.34	
Intersection Signal Delay: 96.3	Intersection LOS: F
Intersection Capacity Utilization 102.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

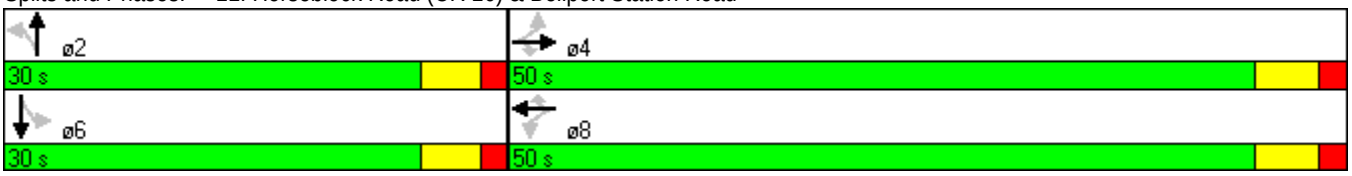


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	53	741	384	7	967	123	246	204	116	200
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		26.0		26.0
Actuated g/C Ratio		0.58	0.58		0.58	0.58		0.32		0.32
v/c Ratio		2.97	0.41		1.15	0.17		1.29		0.79
Control Delay		909.0	4.7		94.0	13.0		176.3		37.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		909.0	4.7		94.0	13.0		176.3		37.4
LOS		F	A		F	B		F		D
Approach Delay		614.2			84.9			176.3		37.4
Approach LOS		F			F			F		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 46 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.97
Intersection Signal Delay: 286.2 Intersection LOS: F
Intersection Capacity Utilization 129.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

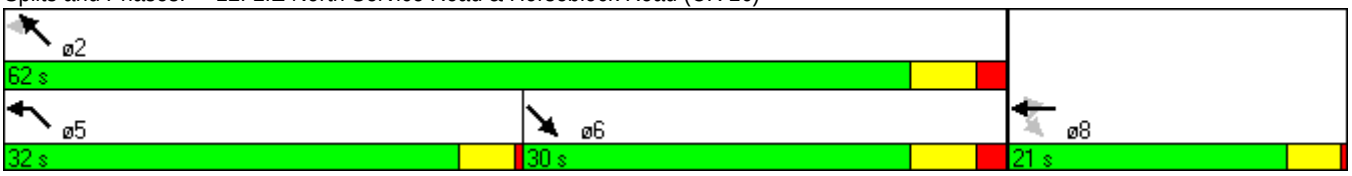


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	370	135	1043	997	752
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	9.8	9.8	22.0	8.0	22.0
Total Split (s)	21.0	21.0	30.0	32.0	62.0
Total Split (%)	25.3%	25.3%	36.1%	38.6%	74.7%
Yellow Time (s)	3.3	3.3	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	2.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.0	17.0	26.0	60.0	58.0
Actuated g/C Ratio	0.20	0.20	0.31	0.72	0.70
v/c Ratio	0.98	0.34	0.96	1.49	0.63
Control Delay	63.1	7.7	47.5	249.4	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	7.7	47.5	249.4	9.5
LOS	E	A	D	F	A
Approach Delay	53.9		47.5		146.3
Approach LOS	D		D		F

Intersection Summary

Cycle Length: 83
Actuated Cycle Length: 83
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 96.6 Intersection LOS: F
Intersection Capacity Utilization 114.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

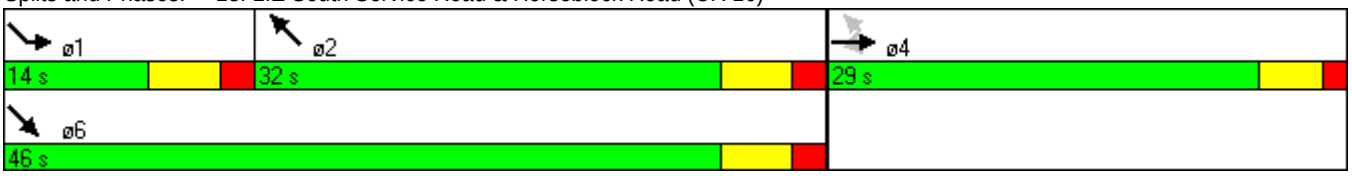


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	274	152	647	469	876	1403
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	25.0	25.0	25.0	10.0	42.0	28.0
Actuated g/C Ratio	0.33	0.33	0.33	0.13	0.56	0.37
v/c Ratio	0.48	0.28	1.33	1.14	0.49	2.04
Control Delay	22.8	19.9	184.1	118.9	11.1	492.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	19.9	184.1	118.9	11.1	492.4
LOS	C	B	F	F	B	F
Approach Delay		119.7			48.7	492.4
Approach LOS		F			D	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.04
Intersection Signal Delay: 225.8 Intersection LOS: F
Intersection Capacity Utilization 114.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	577	949	1553	217	118	1493
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	627	1032	1688	236	128	1623
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked	0.91					
vC, conflicting volume	2756	1688			1924	
vC1, stage 1 conf vol	1688					
vC2, stage 2 conf vol	1068					
vCu, unblocked vol	2733	1688			1924	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	0			58	
cM capacity (veh/h)	105	83			303	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	1659	1688	236	128	811	811
Volume Left	627	0	0	128	0	0
Volume Right	1032	0	236	0	0	0
cSH	90	1700	1700	303	1700	1700
Volume to Capacity	18.48	0.99	0.14	0.42	0.48	0.48
Queue Length 95th (ft)	Err	0	0	50	0	0
Control Delay (s)	Err	0.0	0.0	25.3	0.0	0.0
Lane LOS	F			D		
Approach Delay (s)	Err	0.0		1.9		
Approach LOS	F					

Intersection Summary			
Average Delay	3110.1		
Intersection Capacity Utilization	188.6%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1142	132	0	0	0	182
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1241	143	0	0	0	198
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	441					
pX, platoon unblocked						
vC, conflicting volume			1385		1241	1241
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1385		1241	1241
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	7
cM capacity (veh/h)			495		193	213

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	1241	143	198
Volume Left	0	0	0
Volume Right	0	143	198
cSH	1700	1700	213
Volume to Capacity	0.73	0.08	0.93
Queue Length 95th (ft)	0	0	192
Control Delay (s)	0.0	0.0	91.1
Lane LOS			F
Approach Delay (s)	0.0		91.1
Approach LOS			F

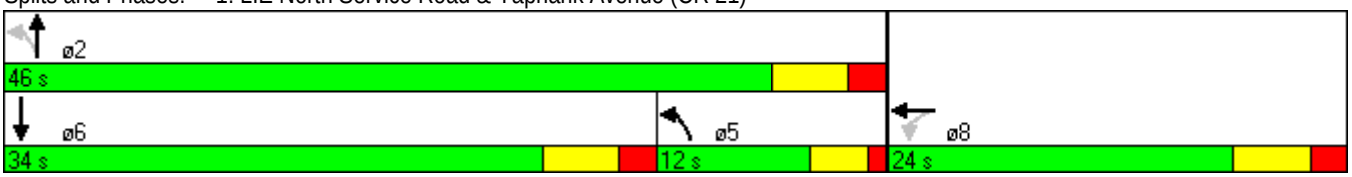
Intersection Summary			
Average Delay	11.4		
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

BUILD SATURDAY PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	6	535	215	150
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	19.7	42.3	42.3	30.3
Actuated g/C Ratio	0.28	0.60	0.60	0.43
v/c Ratio	1.46dl	0.85	0.24	0.15
Control Delay	33.5	16.0	2.1	8.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	33.5	16.0	2.1	8.6
LOS	C	B	A	A
Approach Delay	33.5		12.0	8.6
Approach LOS	C		B	A

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 85.5%	ICU Level of Service E
Analysis Period (min) 15	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

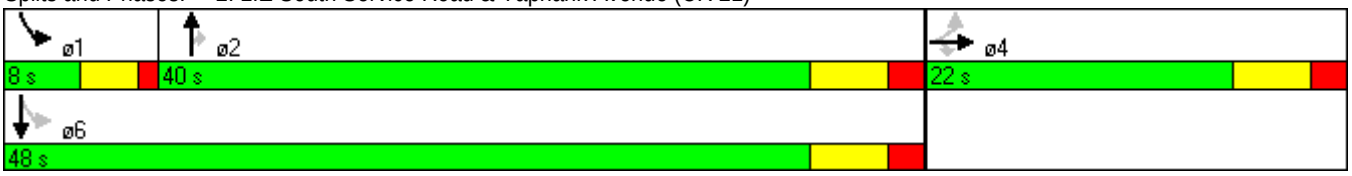


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	414	927	674	307	258	500
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	18.0	18.0	36.0	36.0	44.0	44.0
Actuated g/C Ratio	0.26	0.26	0.51	0.51	0.63	0.63
v/c Ratio	1.19	1.69	0.86	0.45	1.44	0.27
Control Delay	131.1	336.0	26.5	10.3	237.4	1.0
Queue Delay	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	131.1	336.0	26.7	10.3	237.4	1.0
LOS	F	F	C	B	F	A
Approach Delay	265.6		21.6			81.5
Approach LOS	F		C			F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.69
Intersection Signal Delay: 144.9 Intersection LOS: F
Intersection Capacity Utilization 85.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	7	0	0	3	6	1334	0	0	944	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	8	0	0	4	7	1533	0	0	983	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	2534	2530	492	2047	2536	1533	989			1533		
vC1, stage 1 conf vol	983	983		1547	1547							
vC2, stage 2 conf vol	1551	1547		500	989							
vCu, unblocked vol	2534	2530	492	2047	2536	1533	989			1533		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	100	98	100	100	97	99			100		
cM capacity (veh/h)	101	149	523	113	148	105	695			430		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	16	4	7	1533	0	0	492	492	5
Volume Left	8	0	7	0	0	0	0	0	0
Volume Right	8	4	0	0	0	0	0	0	5
cSH	169	105	695	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.10	0.03	0.01	0.90	0.00	0.00	0.29	0.29	0.00
Queue Length 95th (ft)	8	3	1	0	0	0	0	0	0
Control Delay (s)	28.5	40.3	10.2	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	D	E	B						
Approach Delay (s)	28.5	40.3	0.0			0.0			
Approach LOS	D	E							

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	75	1231	29	84	875
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.91	0.91
Hourly flow rate (vph)	16	88	1448	34	92	962
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2594	1448			1482	
vC1, stage 1 conf vol	1448					
vC2, stage 2 conf vol	1146					
vCu, unblocked vol	2594	1448			1482	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	45			80	
cM capacity (veh/h)	155	161			454	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	105	1448	34	92	962
Volume Left	16	0	0	92	0
Volume Right	88	0	34	0	0
cSH	160	1700	1700	454	1700
Volume to Capacity	0.65	0.85	0.02	0.20	0.57
Queue Length 95th (ft)	92	0	0	19	0
Control Delay (s)	62.3	0.0	0.0	14.9	0.0
Lane LOS	F			B	
Approach Delay (s)	62.3	0.0		1.3	
Approach LOS	F				

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	81.9%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	390	101	80	890	505	383
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	459	119	94	1047	594	451
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1829	594	594			
vC1, stage 1 conf vol	594					
vC2, stage 2 conf vol	1235					
vCu, unblocked vol	1829	594	594			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	76	90			
cM capacity (veh/h)	227	505	982			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	459	119	94	1047	594	451
Volume Left	459	0	94	0	0	0
Volume Right	0	119	0	0	0	451
cSH	227	505	982	1700	1700	1700
Volume to Capacity	2.02	0.24	0.10	0.62	0.35	0.27
Queue Length 95th (ft)	850	23	8	0	0	0
Control Delay (s)	508.0	14.3	9.1	0.0	0.0	0.0
Lane LOS	F	B	A			
Approach Delay (s)	406.4		0.7		0.0	
Approach LOS	F					

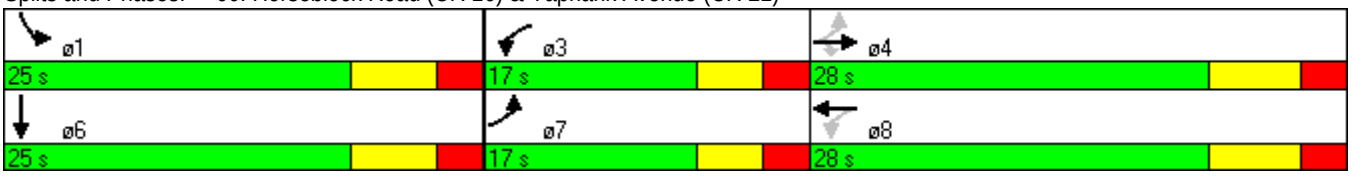
Intersection Summary			
Average Delay	85.3		
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	228	856	48	41	731	325	103
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	25.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	42.1	34.4	34.4	34.7	26.3	19.8	19.8
Actuated g/C Ratio	0.60	0.49	0.49	0.50	0.38	0.28	0.28
v/c Ratio	0.63	0.59	0.07	0.14	0.61	0.75	0.22
Control Delay	18.0	15.6	4.1	7.7	20.9	33.8	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	15.6	4.1	7.7	20.9	33.8	19.9
LOS	B	B	A	A	C	C	B
Approach Delay		15.6			20.2		30.4
Approach LOS		B			C		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 19.7 Intersection LOS: B
Intersection Capacity Utilization 60.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	1132	731	0	0	148
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.93	0.93
Hourly flow rate (vph)	0	1316	812	0	0	159
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.81				0.81	0.81
vC, conflicting volume	812				1141	406
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	313				717	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	82
cM capacity (veh/h)	1013				297	883

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	329	329	329	329	406	406	159
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	159
cSH	1700	1700	1700	1700	1700	1700	883
Volume to Capacity	0.19	0.19	0.19	0.19	0.24	0.24	0.18
Queue Length 95th (ft)	0	0	0	0	0	0	16
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Lane LOS							A
Approach Delay (s)	0.0				0.0		10.0
Approach LOS							A

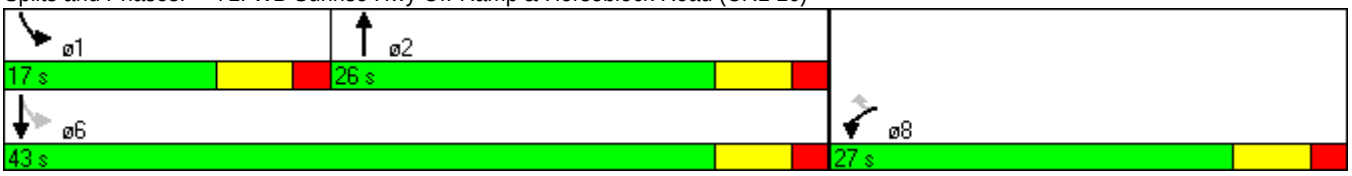
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	36.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	58	835	653	231	897
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	10.0	22.0
Total Split (s)	27.0	27.0	26.0	17.0	43.0
Total Split (%)	38.6%	38.6%	37.1%	24.3%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.0	21.0	20.9	37.0	37.0
Actuated g/C Ratio	0.30	0.30	0.30	0.53	0.53
v/c Ratio	0.13	1.29	0.90	0.70	0.53
Control Delay	18.7	158.8	36.1	23.2	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	158.8	36.1	23.2	12.1
LOS	B	F	D	C	B
Approach Delay	149.7		36.1		14.4
Approach LOS	F		D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 64.6 Intersection LOS: E
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15

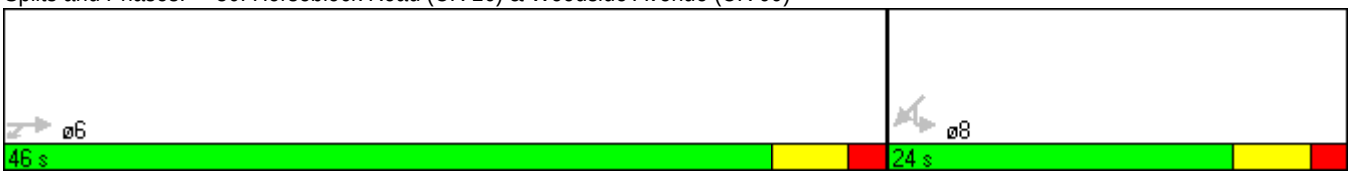
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	584	18	291
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	48.3	48.3	13.7
Actuated g/C Ratio	0.69	0.69	0.20
v/c Ratio	0.27	0.02	0.48
Control Delay	2.4	0.7	30.6
Queue Delay	0.0	0.0	0.0
Total Delay	2.4	0.7	30.6
LOS	A	A	C
Approach Delay	2.3		30.6
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 11.5	Intersection LOS: B
Intersection Capacity Utilization 31.5%	ICU Level of Service A
Analysis Period (min) 15	

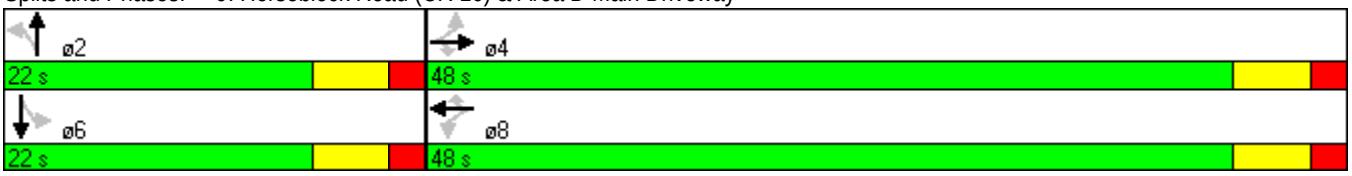
Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	85	647	163	114	670	155	144	0	175	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	22.0	22.0	22.0	22.0
Total Split (%)	68.6%	68.6%	68.6%	68.6%	68.6%	68.6%	31.4%	31.4%	31.4%	31.4%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	44.0	44.0	44.0	44.0	44.0	44.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.26	0.26	0.26	0.26
v/c Ratio	0.28	0.30	0.16	0.28	0.61	0.16	0.52	0.30	0.69	0.24
Control Delay	6.1	4.1	0.4	12.9	19.8	5.2	29.2	2.0	38.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	4.1	0.4	12.9	19.8	5.2	29.2	2.0	38.9	1.0
LOS	A	A	A	B	B	A	C	A	D	A
Approach Delay		3.6			16.6			14.8		22.9
Approach LOS		A			B			B		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 73.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

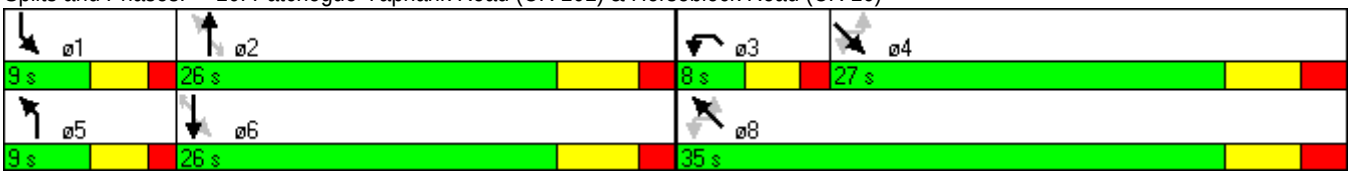


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	42	666	64	60	584	55	72	577	33	97	610	61
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	28.6	25.6	25.6	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.41	0.37	0.37	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.15	0.58	0.12	0.24	0.51	0.10	0.65	1.05	0.06	0.48	0.75	0.08
Control Delay	12.5	21.1	5.6	13.8	20.0	5.8	27.5	56.2	1.6	16.5	18.2	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	21.1	5.6	13.8	20.0	5.8	27.5	56.2	1.6	16.5	18.2	2.9
LOS	B	C	A	B	B	A	C	E	A	B	B	A
Approach Delay		19.3			18.3			50.5			16.8	
Approach LOS		B			B			D			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 26.0 Intersection LOS: C
Intersection Capacity Utilization 75.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

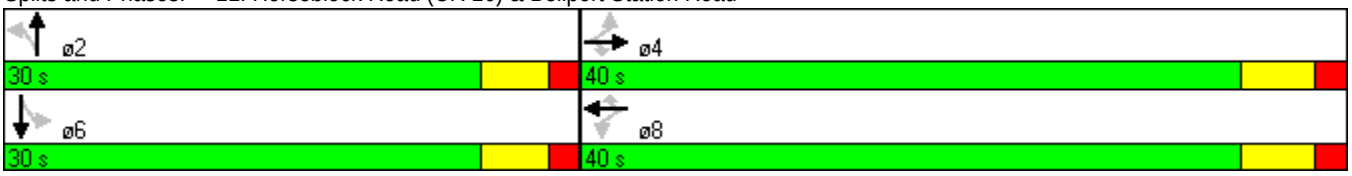


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	28	614	393	6	676	55	308	170	47	120
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.92	0.45		0.81	0.08		1.07		0.38
Control Delay		36.4	4.6		24.5	10.6		87.0		16.5
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		36.4	4.6		24.5	10.6		87.0		16.5
LOS		D	A		C	B		F		B
Approach Delay		24.3			23.5			87.0		16.5
Approach LOS		C			C			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 35.5 Intersection LOS: D
Intersection Capacity Utilization 103.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

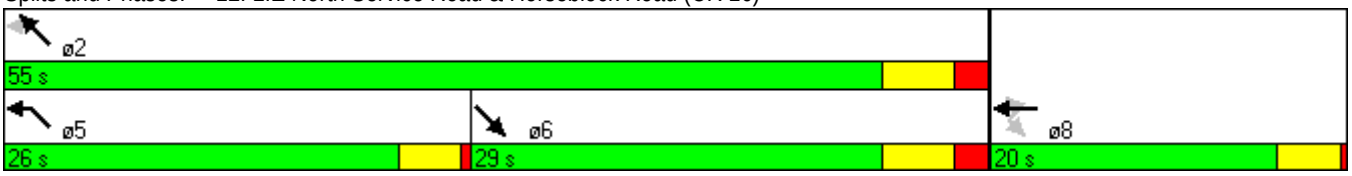


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	353	269	879	528	772
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	8.0	22.0
Total Split (s)	20.0	20.0	29.0	26.0	55.0
Total Split (%)	26.7%	26.7%	38.7%	34.7%	73.3%
Yellow Time (s)	3.5	3.5	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	2.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.8	14.8	28.4	54.2	52.2
Actuated g/C Ratio	0.20	0.20	0.38	0.72	0.70
v/c Ratio	0.69	0.62	0.68	0.90	0.63
Control Delay	33.2	13.5	23.1	30.7	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	13.5	23.1	30.7	14.7
LOS	C	B	C	C	B
Approach Delay	25.9		23.1		21.2
Approach LOS	C		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.0 Intersection LOS: C
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

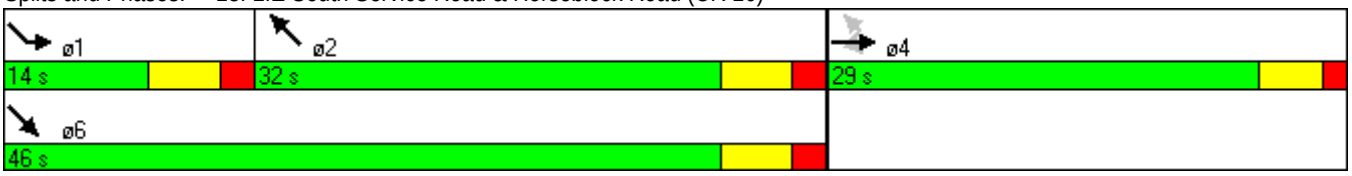


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	133	93	454	285	654	1135
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.3	21.3	21.3	11.0	45.7	30.7
Actuated g/C Ratio	0.28	0.28	0.28	0.15	0.61	0.41
v/c Ratio	0.25	0.18	0.87	0.66	0.36	1.59
Control Delay	20.5	19.5	31.9	44.8	7.3	294.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	19.5	31.9	44.8	7.3	294.6
LOS	C	B	C	D	A	F
Approach Delay		28.0			18.7	294.6
Approach LOS		C			B	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.59
Intersection Signal Delay: 134.4 Intersection LOS: F
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	199	170	768	559	651	724
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	216	185	835	608	708	787
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked						
vC, conflicting volume	2643	835			1442	
vC1, stage 1 conf vol	835					
vC2, stage 2 conf vol	1809					
vCu, unblocked vol	2643	835			1442	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	41			0	
cM capacity (veh/h)	0	311			466	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	401	835	608	708	393	393
Volume Left	216	0	0	708	0	0
Volume Right	185	0	608	0	0	0
cSH	0	1700	1700	466	1700	1700
Volume to Capacity	Err	0.49	0.36	1.52	0.23	0.23
Queue Length 95th (ft)	Err	0	0	933	0	0
Control Delay (s)	Err	0.0	0.0	266.7	0.0	0.0
Lane LOS	F			F		
Approach Delay (s)	Err	0.0		126.2		
Approach LOS	F					

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	107.9%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	380	600	0	0	0	55
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	413	652	0	0	0	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	458					
pX, platoon unblocked						
vC, conflicting volume			1065		413	413
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1065		413	413
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			654		595	639

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	413	652	60
Volume Left	0	0	0
Volume Right	0	652	60
cSH	1700	1700	639
Volume to Capacity	0.24	0.38	0.09
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.0	11.2
Lane LOS			B
Approach Delay (s)	0.0		11.2
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX M: MITIGATED BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

Intersections

1. Yaphank Avenue (CR 21) at LIE North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road
14. Yaphank Avenue (CR 21) at Area A Main Driveway
15. LIE North Service Road at Area A Secondary Driveway

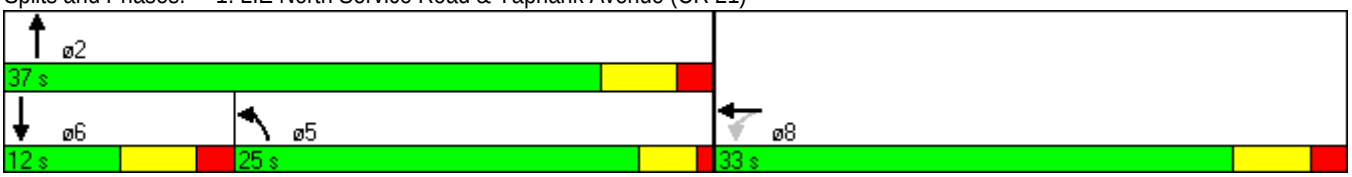
MITIGATED BUILD AM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	2	703	151	275
Turn Type		Prot		
Protected Phases	8	5	2	6
Permitted Phases				
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	1.0	3.0	12.0	1.0
Minimum Split (s)	7.0	7.0	36.0	7.0
Total Split (s)	33.0	25.0	37.0	12.0
Total Split (%)	47.1%	35.7%	52.9%	17.1%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	28.3	21.0	33.7	8.7
Actuated g/C Ratio	0.40	0.30	0.48	0.12
v/c Ratio	1.49dl	0.83	0.22	0.89
Control Delay	26.9	23.1	2.6	48.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.9	23.1	2.6	48.3
LOS	C	C	A	D
Approach Delay	26.9		19.5	48.3
Approach LOS	C		B	D

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 27.8 Intersection LOS: C
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

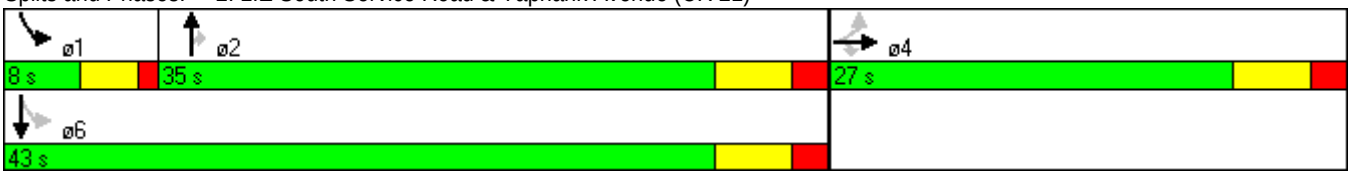


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	24	585	836	498	83	1077
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	3.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	7.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.1	21.1	34.0	34.0	40.9	40.9
Actuated g/C Ratio	0.30	0.30	0.49	0.49	0.58	0.58
v/c Ratio	0.11	0.77	0.55	0.54	0.33	0.63
Control Delay	17.2	25.2	6.6	2.4	3.0	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay	17.2	25.2	6.6	2.4	3.0	5.6
LOS	B	C	A	A	A	A
Approach Delay	24.5		5.0			5.4
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 9.2 Intersection LOS: A
Intersection Capacity Utilization 92.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)

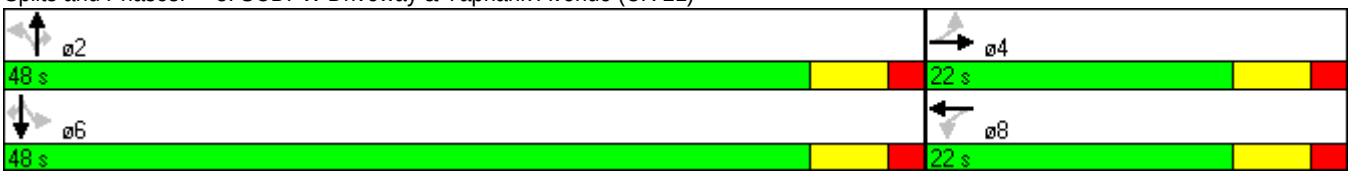


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	2	0	15	0	36	1442	83	113	1472	30
Turn Type	Perm		Perm		Perm		Perm	Perm		Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	22.0	22.0	22.0	22.0	48.0	48.0	48.0	48.0	48.0	48.0
Total Split (%)	31.4%	31.4%	31.4%	31.4%	68.6%	68.6%	68.6%	68.6%	68.6%	68.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		8.8		8.8	59.4	59.4	59.4	59.4	59.4	59.4
Actuated g/C Ratio		0.13		0.13	0.85	0.85	0.85	0.85	0.85	0.85
v/c Ratio		0.07		0.23	0.17	0.48	0.06	0.49	0.53	0.03
Control Delay		15.1		17.8	5.1	3.5	1.1	12.4	3.6	1.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay		15.1		17.8	5.1	3.5	1.1	12.4	3.8	1.1
LOS		B		B	A	A	A	B	A	A
Approach Delay		15.1		17.8		3.4			4.3	
Approach LOS		B		B		A			A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 68 (97%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 4.1 Intersection LOS: A
Intersection Capacity Utilization 61.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 3: SCDPW Driveway & Yaphank Avenue (CR 21)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	112	1386	15	33	1201
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.88	0.88	0.85	0.85
Hourly flow rate (vph)	26	132	1575	17	39	1413
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)			244			
pX, platoon unblocked	0.83	0.83			0.83	
vC, conflicting volume	2359	788			1592	
vC1, stage 1 conf vol	1575					
vC2, stage 2 conf vol	784					
vCu, unblocked vol	2227	333			1303	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	84	76			91	
cM capacity (veh/h)	162	550			437	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	158	788	788	17	39	706	706
Volume Left	26	0	0	0	39	0	0
Volume Right	132	0	0	17	0	0	0
cSH	395	1700	1700	1700	437	1700	1700
Volume to Capacity	0.40	0.46	0.46	0.01	0.09	0.42	0.42
Queue Length 95th (ft)	47	0	0	0	7	0	0
Control Delay (s)	20.1	0.0	0.0	0.0	14.0	0.0	0.0
Lane LOS	C				B		
Approach Delay (s)	20.1	0.0			0.4		
Approach LOS	C						

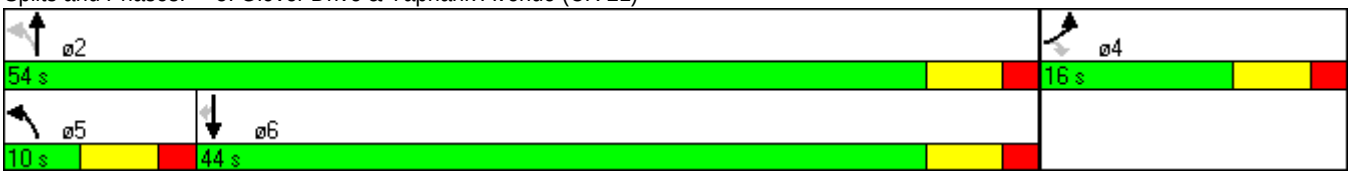
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	415	73	141	1002	1089	142
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	1.0	1.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.0	7.0	10.0	23.0	22.0	22.0
Total Split (s)	16.0	16.0	10.0	54.0	44.0	44.0
Total Split (%)	22.9%	22.9%	14.3%	77.1%	62.9%	62.9%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	14.3	14.3	47.7	47.7	37.2	37.2
Actuated g/C Ratio	0.20	0.20	0.68	0.68	0.53	0.53
v/c Ratio	0.79	0.24	0.58	0.52	0.74	0.21
Control Delay	40.0	8.8	14.6	6.3	17.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	8.8	14.6	6.3	17.0	2.8
LOS	D	A	B	A	B	A
Approach Delay	35.3			7.4	15.4	
Approach LOS	D			A	B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 59.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 5: Glover Drive & Yaphank Avenue (CR 21)

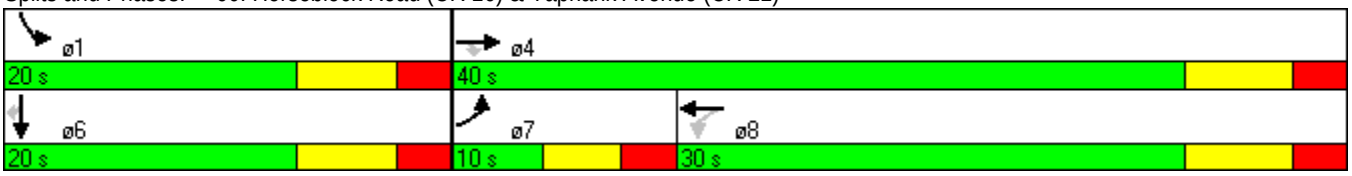


Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations								
Volume (vph)	182	495	32	41	1483	257	111	633
Turn Type	Prot		Perm	Perm		Prot		Perm
Protected Phases	7	4			8	1	6	
Permitted Phases			4	8				6
Detector Phase	7	4	4	8	8	1	6	6
Switch Phase								
Minimum Initial (s)	3.0	1.0	1.0	1.0	1.0	4.0	8.0	8.0
Minimum Split (s)	10.0	8.3	8.3	8.3	8.3	11.0	15.0	15.0
Total Split (s)	10.0	40.0	40.0	30.0	30.0	20.0	20.0	20.0
Total Split (%)	16.7%	66.7%	66.7%	50.0%	50.0%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	4.8	4.8	4.8	4.8	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-3.3	-3.3	-3.0	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag			
Lead-Lag Optimize?	Yes			Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	6.5	36.5	36.5	26.0	26.0	15.5	15.5	15.5
Actuated g/C Ratio	0.11	0.61	0.61	0.43	0.43	0.26	0.26	0.26
v/c Ratio	0.59	0.27	0.03	0.13	1.02	0.37	0.87	0.87
Control Delay	34.0	6.0	2.1	11.6	47.0	19.5	32.8	33.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	6.0	2.1	11.6	47.0	19.5	32.8	33.9
LOS	C	A	A	B	D	B	C	C
Approach Delay		13.0			46.1		29.8	
Approach LOS		B			D		C	

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 33.4 Intersection LOS: C
Intersection Capacity Utilization 75.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)

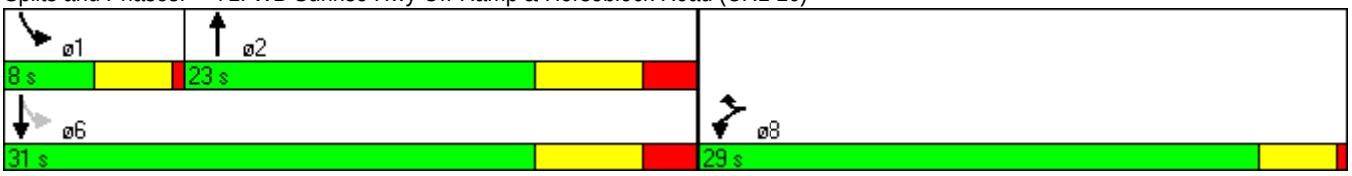


Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	44	1431	1091	67	681
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	1.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.3	8.0	23.3
Total Split (s)	29.0	29.0	23.0	8.0	31.0
Total Split (%)	48.3%	48.3%	38.3%	13.3%	51.7%
Yellow Time (s)	3.5	3.5	4.8	3.5	4.8
All-Red Time (s)	0.5	0.5	2.5	0.5	2.5
Lost Time Adjust (s)	0.0	0.0	-3.3	0.0	-3.3
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.0	25.0	22.2	27.0	27.0
Actuated g/C Ratio	0.42	0.42	0.37	0.45	0.45
v/c Ratio	0.07	1.17	0.99	0.31	0.50
Control Delay	10.9	103.9	47.3	13.3	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.9	103.9	47.3	13.3	13.3
LOS	B	F	D	B	B
Approach Delay	101.2		47.3		13.3
Approach LOS	F		D		B

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 63.7 Intersection LOS: E
Intersection Capacity Utilization 89.0% ICU Level of Service E
Analysis Period (min) 15

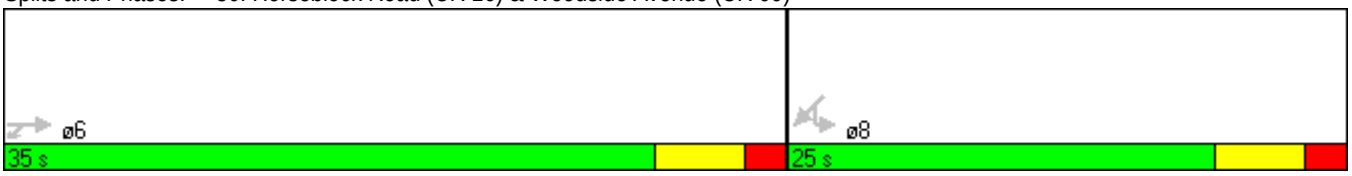
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	658	19	279
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	35.0	35.0	25.0
Total Split (%)	58.3%	58.3%	41.7%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	38.9	38.9	13.1
Actuated g/C Ratio	0.65	0.65	0.22
v/c Ratio	0.33	0.02	0.46
Control Delay	5.5	2.4	20.7
Queue Delay	0.0	0.0	0.0
Total Delay	5.5	2.4	20.7
LOS	A	A	C
Approach Delay	5.4		20.7
Approach LOS	A		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 10.2	Intersection LOS: B
Intersection Capacity Utilization 33.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

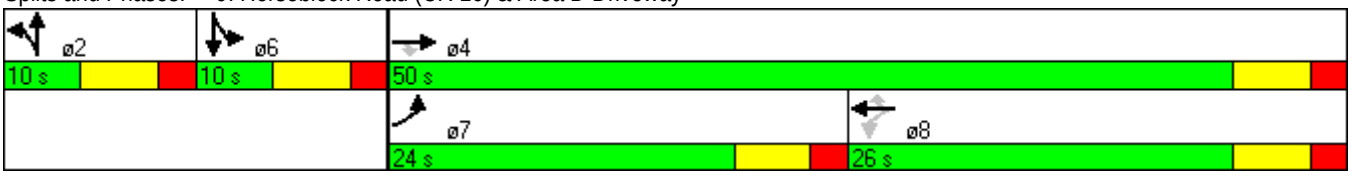


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	468	499	51	44	1100	1018	44	0	183	0
Turn Type	Prot		Perm	Perm		Perm	Split		Split	
Protected Phases	7	4			8		2	2	6	6
Permitted Phases			4	8		8				
Detector Phase	7	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0	1.0	1.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0	7.0	7.0	7.0	7.0
Total Split (s)	24.0	50.0	50.0	26.0	26.0	26.0	10.0	10.0	10.0	10.0
Total Split (%)	34.3%	71.4%	71.4%	37.1%	37.1%	37.1%	14.3%	14.3%	14.3%	14.3%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	17.2	46.0	46.0	24.8	24.8	24.8	6.0	6.0	6.0	6.0
Actuated g/C Ratio	0.25	0.66	0.66	0.35	0.35	0.35	0.09	0.09	0.09	0.09
v/c Ratio	0.60	0.24	0.05	0.16	0.92	0.76	0.34	0.10	0.68	0.26
Control Delay	26.4	5.2	1.5	18.5	37.0	11.4	36.6	0.4	44.2	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	5.2	1.5	18.5	37.0	11.4	36.6	0.4	44.2	1.0
LOS	C	A	A	B	D	B	D	A	D	A
Approach Delay		14.6			24.4			20.1		25.1
Approach LOS		B			C			C		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 21.5 Intersection LOS: C
Intersection Capacity Utilization 69.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Driveway

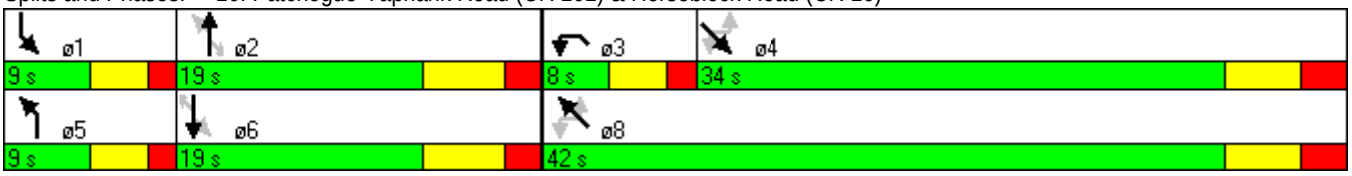


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	28	638	133	98	667	64	74	883	13	78	549	87
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	16.2	16.2	8.5	16.2	16.2	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	19.0	19.0	9.0	19.0	19.0	34.0	34.0	34.0	8.0	42.0	42.0
Total Split (%)	12.9%	27.1%	27.1%	12.9%	27.1%	27.1%	48.6%	48.6%	48.6%	11.4%	60.0%	60.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.8	16.8	16.8	22.4	20.4	20.4	31.6	31.6	31.6	38.0	38.0	38.0
Actuated g/C Ratio	0.30	0.24	0.24	0.32	0.29	0.29	0.45	0.45	0.45	0.54	0.54	0.54
v/c Ratio	0.15	0.92	0.33	0.52	0.78	0.15	0.29	0.75	0.02	0.49	0.37	0.12
Control Delay	17.3	46.6	6.7	26.3	32.6	7.4	10.2	16.1	1.8	16.9	9.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	46.6	6.7	26.3	32.6	7.4	10.2	16.1	1.8	16.9	9.9	2.3
LOS	B	D	A	C	C	A	B	B	A	B	A	A
Approach Delay		39.0			29.9			15.4			9.8	
Approach LOS		D			C			B			A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 23.5 Intersection LOS: C
Intersection Capacity Utilization 65.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

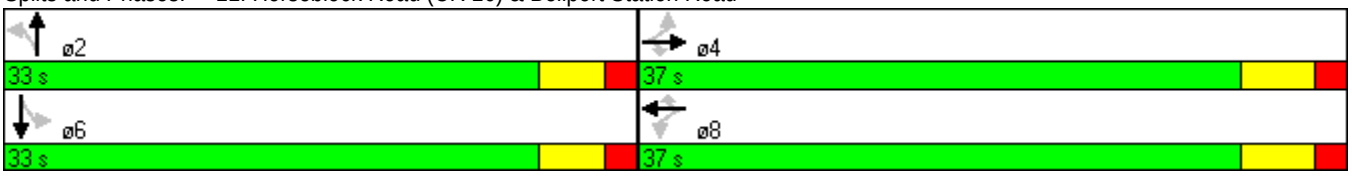


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	14	797	195	2	563	51	243	115	89	188
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	33.0	33.0	33.0	33.0
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	47.1%	47.1%	47.1%	47.1%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		34.1	34.1		34.1	34.1		27.9		27.9
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.40		0.40
v/c Ratio		0.65	0.28		0.43	0.08		0.92		0.53
Control Delay		17.3	3.0		13.1	5.7		49.1		18.7
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		17.3	3.0		13.1	5.7		49.1		18.7
LOS		B	A		B	A		D		B
Approach Delay		14.5			12.5			49.1		18.7
Approach LOS		B			B			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

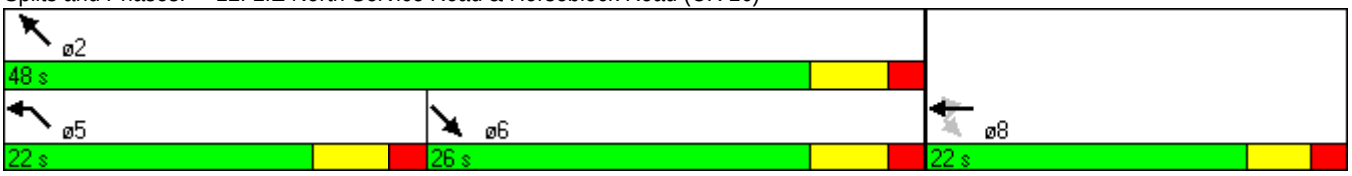


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	404	124	618	550	492
Turn Type		Perm		Prot	
Protected Phases	8		6	5	2
Permitted Phases		8			
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	20.0	4.0	20.0
Minimum Split (s)	21.3	21.3	26.0	10.0	26.0
Total Split (s)	22.0	22.0	26.0	22.0	48.0
Total Split (%)	31.4%	31.4%	37.1%	31.4%	68.6%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.7	17.7	22.9	17.4	44.3
Actuated g/C Ratio	0.25	0.25	0.33	0.25	0.63
v/c Ratio	0.83	0.29	0.66	0.74	0.48
Control Delay	33.9	5.9	23.1	33.8	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	5.9	23.1	33.8	11.8
LOS	C	A	C	C	B
Approach Delay	29.5		23.1		23.4
Approach LOS	C		C		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 64.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

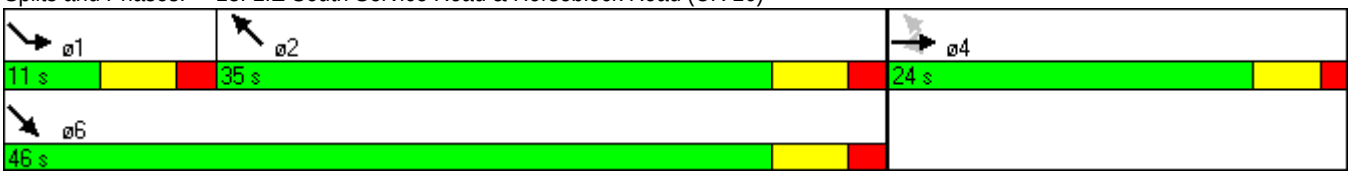


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	99	72	877	269	451	904
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	11.0	46.0	35.0
Total Split (%)	34.3%	34.3%	34.3%	15.7%	65.7%	50.0%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.6	18.6	18.6	8.1	43.4	31.3
Actuated g/C Ratio	0.27	0.27	0.27	0.12	0.62	0.45
v/c Ratio	0.22	0.17	0.91	0.82	0.25	0.61
Control Delay	20.5	19.8	22.6	50.3	5.4	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	19.8	22.6	50.3	5.4	15.7
LOS	C	B	C	D	A	B
Approach Delay		22.2			22.2	15.7
Approach LOS		C			C	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 20.1 Intersection LOS: C
Intersection Capacity Utilization 64.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)

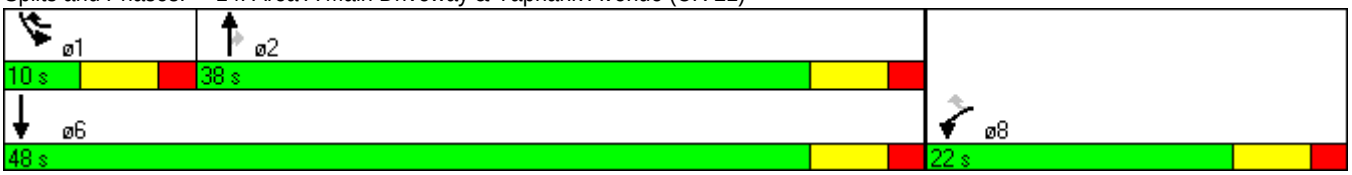


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	65	46	1381	87	39	1550
Turn Type		pm+ov		Perm	Prot	
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	10.0	22.0	22.0	10.0	22.0
Total Split (s)	22.0	10.0	38.0	38.0	10.0	48.0
Total Split (%)	31.4%	14.3%	54.3%	54.3%	14.3%	68.6%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	8.9	18.9	46.2	46.2	8.3	56.2
Actuated g/C Ratio	0.13	0.27	0.66	0.66	0.12	0.80
v/c Ratio	0.16	0.06	0.64	0.09	0.10	0.59
Control Delay	27.7	9.8	10.3	2.3	29.9	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	9.8	10.3	2.3	29.9	3.1
LOS	C	A	B	A	C	A
Approach Delay	20.3		9.9			3.7
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 62 (89%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 7.2 Intersection LOS: A
Intersection Capacity Utilization 52.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 14: Area A Main Driveway & Yaphank Avenue (CR 21)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	557	47	0	0	0	18
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	605	51	0	0	0	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	419					
pX, platoon unblocked						
vC, conflicting volume			657		605	605
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			657		605	605
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			931		461	497

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	605	51	20
Volume Left	0	0	0
Volume Right	0	51	20
cSH	1700	1700	497
Volume to Capacity	0.36	0.03	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.0	12.5
Lane LOS			B
Approach Delay (s)	0.0		12.5
Approach LOS			B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

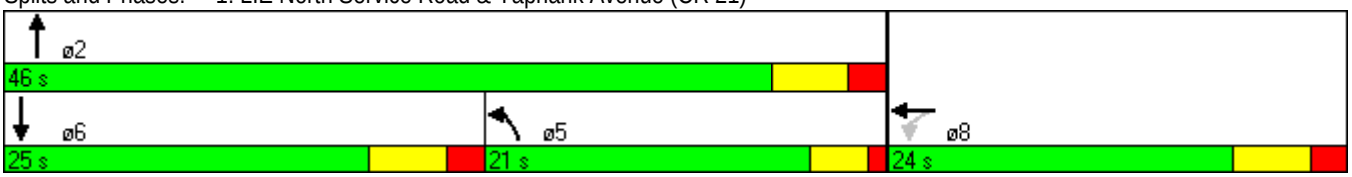
MITIGATED BUILD MIDDAY PEAK HOUR LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	0	660	271	199
Turn Type		Prot		
Protected Phases	8	5	2	6
Permitted Phases				
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	1.0	4.0	12.0	1.0
Minimum Split (s)	7.0	8.0	36.0	7.0
Total Split (s)	24.0	21.0	46.0	25.0
Total Split (%)	34.3%	30.0%	65.7%	35.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	17.0	42.0	21.0
Actuated g/C Ratio	0.29	0.24	0.60	0.30
v/c Ratio	1.69dl	0.97	0.32	0.26
Control Delay	52.1	51.1	3.2	16.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	52.1	51.1	3.2	16.0
LOS	D	D	A	B
Approach Delay	52.1		37.1	16.0
Approach LOS	D		D	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 39.6 Intersection LOS: D
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

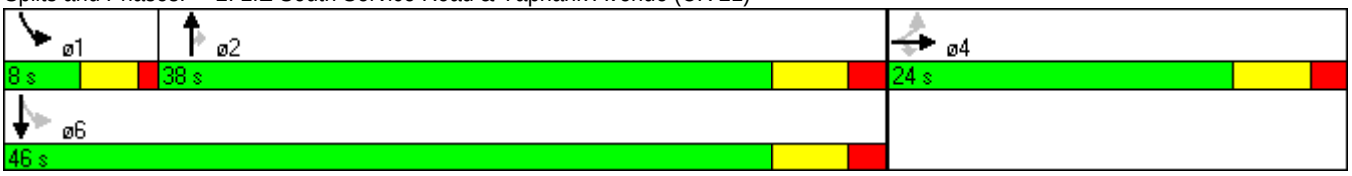


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	411	956	866	347	269	604
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	24.0	24.0	38.0	38.0	8.0	46.0
Total Split (%)	34.3%	34.3%	54.3%	54.3%	11.4%	65.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	20.0	20.0	34.0	34.0	42.0	42.0
Actuated g/C Ratio	0.29	0.29	0.49	0.49	0.60	0.60
v/c Ratio	0.92	0.89	0.56	0.47	0.98	0.31
Control Delay	50.9	23.8	9.3	4.7	54.2	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	23.8	9.3	4.7	54.2	0.8
LOS	D	C	A	A	D	A
Approach Delay	32.7		8.0			17.3
Approach LOS	C		A			B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 20.2 Intersection LOS: C
Intersection Capacity Utilization 73.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)

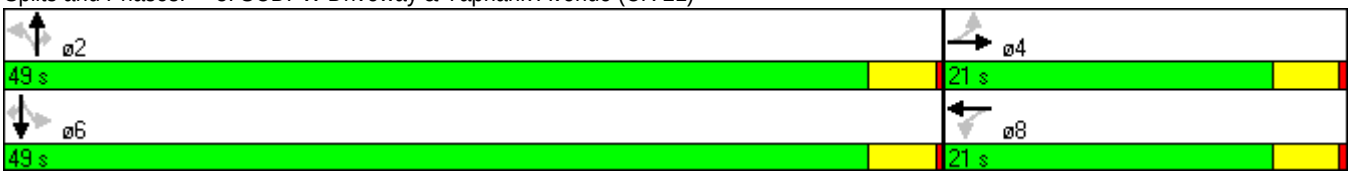


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	37	0	19	2	15	1357	32	45	1074	22
Turn Type	Perm		Perm		Perm		Perm	Perm		Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	21.0	21.0	49.0	49.0	49.0	49.0	49.0	49.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		7.7		7.7	57.0	57.0	57.0	57.0	57.0	57.0
Actuated g/C Ratio		0.11		0.11	0.81	0.81	0.81	0.81	0.81	0.81
v/c Ratio		0.41		0.40	0.05	0.52	0.03	0.22	0.40	0.02
Control Delay		21.1		21.6	2.9	4.1	1.1	6.0	3.4	1.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay		21.1		21.6	2.9	4.1	1.1	6.0	3.5	1.6
LOS		C		C	A	A	A	A	A	A
Approach Delay		21.1		21.6		4.0			3.6	
Approach LOS		C		C		A			A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 65 (93%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 4.8 Intersection LOS: A
Intersection Capacity Utilization 52.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: SCDPW Driveway & Yaphank Avenue (CR 21)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	52	1396	13	45	921
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	15	61	1485	14	51	1035
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)			244			
pX, platoon unblocked	0.79	0.79			0.79	
vC, conflicting volume	2104	743			1499	
vC1, stage 1 conf vol	1485					
vC2, stage 2 conf vol	619					
vCu, unblocked vol	1870	155			1108	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	91			90	
cM capacity (veh/h)	198	685			497	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	76	743	743	14	51	517	517
Volume Left	15	0	0	0	51	0	0
Volume Right	61	0	0	14	0	0	0
cSH	460	1700	1700	1700	497	1700	1700
Volume to Capacity	0.17	0.44	0.44	0.01	0.10	0.30	0.30
Queue Length 95th (ft)	15	0	0	0	8	0	0
Control Delay (s)	14.4	0.0	0.0	0.0	13.1	0.0	0.0
Lane LOS	B				B		
Approach Delay (s)	14.4	0.0			0.6		
Approach LOS	B						

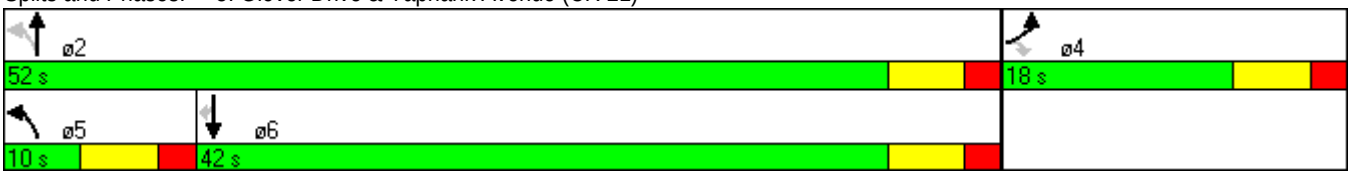
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	433	115	120	993	517	410
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	1.0	1.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.0	7.0	10.0	22.0	22.0	22.0
Total Split (s)	18.0	18.0	10.0	52.0	42.0	42.0
Total Split (%)	25.7%	25.7%	14.3%	74.3%	60.0%	60.0%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	17.6	17.6	44.4	44.4	34.1	34.1
Actuated g/C Ratio	0.25	0.25	0.63	0.63	0.49	0.49
v/c Ratio	0.66	0.30	0.30	0.59	0.40	0.55
Control Delay	28.8	6.5	5.9	8.3	13.3	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	6.5	5.9	8.3	13.3	4.1
LOS	C	A	A	A	B	A
Approach Delay	24.1			8.0	9.2	
Approach LOS	C			A	A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 11.9 Intersection LOS: B
Intersection Capacity Utilization 46.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Glover Drive & Yaphank Avenue (CR 21)

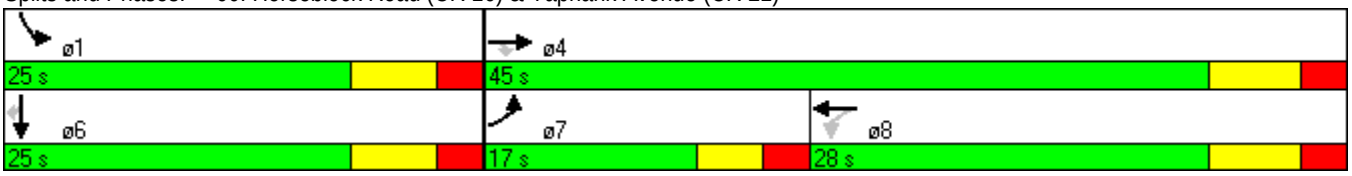


Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations								
Volume (vph)	249	618	36	79	1074	359	125	184
Turn Type	Prot		Perm	Perm		Prot		Perm
Protected Phases	7	4			8	1	6	
Permitted Phases			4	8				6
Detector Phase	7	4	4	8	8	1	6	6
Switch Phase								
Minimum Initial (s)	3.0	20.0	20.0	20.0	20.0	4.0	8.0	8.0
Minimum Split (s)	10.0	27.3	27.3	27.3	27.3	11.0	15.0	15.0
Total Split (s)	17.0	45.0	45.0	28.0	28.0	25.0	25.0	25.0
Total Split (%)	24.3%	64.3%	64.3%	40.0%	40.0%	35.7%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	4.8	4.8	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-3.3	-3.3	-3.0	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag			
Lead-Lag Optimize?	Yes			Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	12.7	44.6	44.6	27.9	27.9	17.4	17.4	17.4
Actuated g/C Ratio	0.18	0.64	0.64	0.40	0.40	0.25	0.25	0.25
v/c Ratio	0.50	0.33	0.04	0.32	0.83	0.54	0.45	0.36
Control Delay	36.9	3.7	0.6	21.3	28.1	36.4	34.6	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	3.7	0.6	21.3	28.1	36.4	34.6	19.3
LOS	D	A	A	C	C	D	C	B
Approach Delay		12.7			27.6		32.2	
Approach LOS		B			C		C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 23.8 Intersection LOS: C
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)

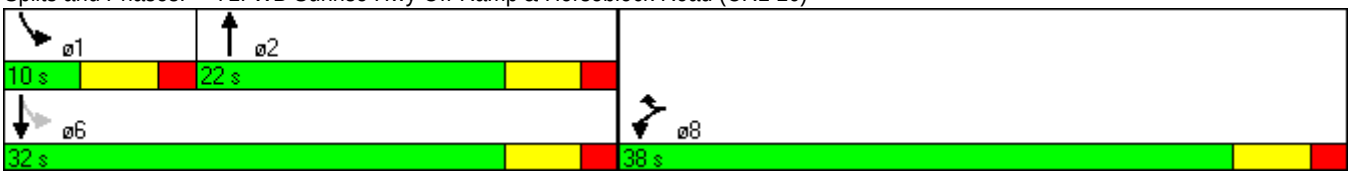


Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	143	1249	688	139	847
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	10.0	22.0
Total Split (s)	38.0	38.0	22.0	10.0	32.0
Total Split (%)	54.3%	54.3%	31.4%	14.3%	45.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	33.5	33.5	18.0	28.5	28.5
Actuated g/C Ratio	0.48	0.48	0.26	0.41	0.41
v/c Ratio	0.20	0.93	0.94	0.59	0.68
Control Delay	11.1	25.4	46.0	25.2	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	25.4	46.0	25.2	20.2
LOS	B	C	D	C	C
Approach Delay	23.9		46.0		20.9
Approach LOS	C		D		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 28.1 Intersection LOS: C
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15

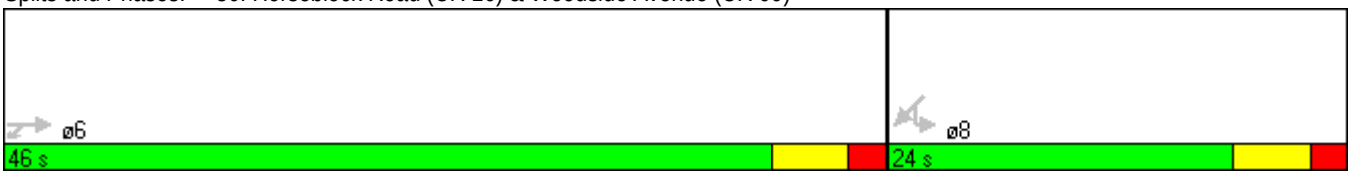
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	532	21	530
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	44.1	44.1	17.9
Actuated g/C Ratio	0.63	0.63	0.26
v/c Ratio	0.27	0.03	0.64
Control Delay	4.0	1.2	28.4
Queue Delay	0.0	0.0	0.0
Total Delay	4.0	1.2	28.4
LOS	A	A	C
Approach Delay	3.9		28.4
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 36.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

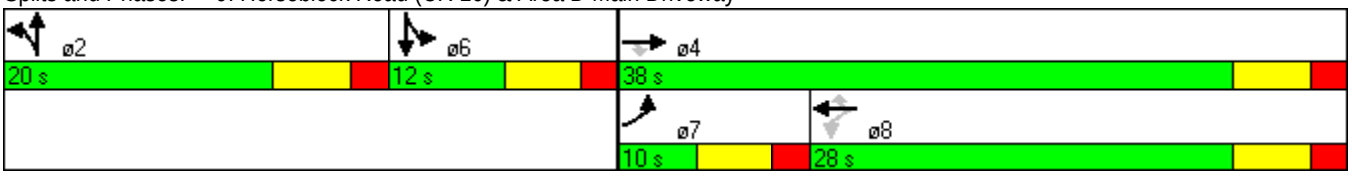


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	85	723	82	75	665	155	72	0	175	0
Turn Type	Prot		Perm	Perm		Perm	Split		Split	
Protected Phases	7	4			8		2	2	6	6
Permitted Phases			4	8		8				
Detector Phase	7	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	7.0	7.0
Total Split (s)	10.0	38.0	38.0	28.0	28.0	28.0	20.0	20.0	12.0	12.0
Total Split (%)	14.3%	54.3%	54.3%	40.0%	40.0%	40.0%	28.6%	28.6%	17.1%	17.1%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	6.0	34.0	34.0	26.0	26.0	26.0	16.0	16.0	8.0	8.0
Actuated g/C Ratio	0.09	0.49	0.49	0.37	0.37	0.37	0.23	0.23	0.11	0.11
v/c Ratio	0.31	0.46	0.11	0.36	0.56	0.15	0.21	0.23	0.48	0.27
Control Delay	36.2	14.4	4.7	12.7	12.6	3.5	23.6	4.9	33.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	14.4	4.7	12.7	12.6	3.5	23.6	4.9	33.7	1.3
LOS	D	B	A	B	B	A	C	A	C	A
Approach Delay		15.5			11.0			13.2		20.0
Approach LOS		B			B			B		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 14.2 Intersection LOS: B
Intersection Capacity Utilization 49.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

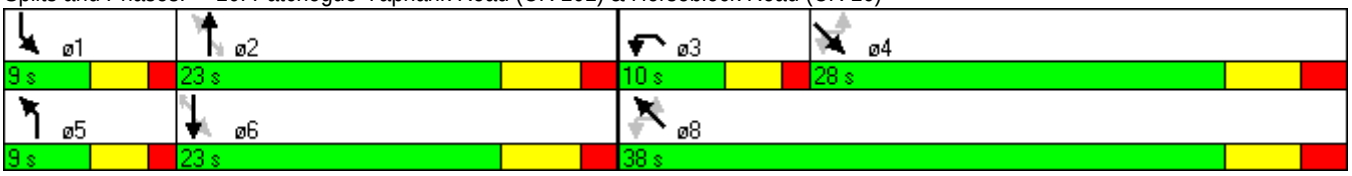


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	30	639	90	53	536	70	38	514	90	179	480	67
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.0	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	28.0	28.0	28.0	10.0	38.0	38.0
Total Split (%)	12.9%	32.9%	32.9%	12.9%	32.9%	32.9%	40.0%	40.0%	40.0%	14.3%	54.3%	54.3%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.6	22.6	22.6	26.4	24.4	24.4	24.0	24.0	24.0	34.0	34.0	34.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.35	0.35	0.34	0.34	0.34	0.49	0.49	0.49
v/c Ratio	0.10	0.61	0.18	0.22	0.49	0.13	0.18	0.55	0.18	0.72	0.36	0.11
Control Delay	13.8	24.0	6.0	15.4	20.8	6.3	10.6	14.3	3.9	25.2	8.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	24.0	6.0	15.4	20.8	6.3	10.6	14.3	3.9	25.2	8.7	1.5
LOS	B	C	A	B	C	A	B	B	A	C	A	A
Approach Delay		21.5			18.8			12.7			12.1	
Approach LOS		C			B			B			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 58.5% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

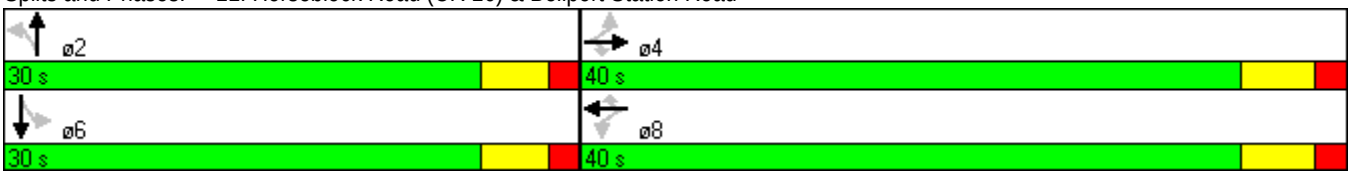


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	18	592	297	11	658	32	346	160	55	121
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.44	0.36		0.53	0.05		1.26		0.36
Control Delay		15.2	5.3		12.6	5.6		158.3		17.3
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		15.2	5.3		12.6	5.6		158.3		17.3
LOS		B	A		B	A		F		B
Approach Delay		12.0			12.2			158.3		17.3
Approach LOS		B			B			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 45.9 Intersection LOS: D
Intersection Capacity Utilization 78.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

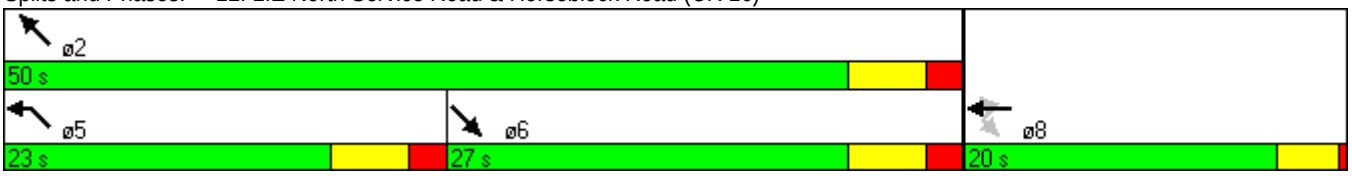


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	257	118	839	520	677
Turn Type		Perm		Prot	
Protected Phases	8		6	5	2
Permitted Phases		8			
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	10.0	22.0
Total Split (s)	20.0	20.0	27.0	23.0	50.0
Total Split (%)	28.6%	28.6%	38.6%	32.9%	71.4%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.7	14.7	25.9	17.4	47.3
Actuated g/C Ratio	0.21	0.21	0.37	0.25	0.68
v/c Ratio	0.73	0.32	0.69	0.65	0.58
Control Delay	31.8	6.9	22.4	28.5	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	6.9	22.4	28.5	13.4
LOS	C	A	C	C	B
Approach Delay	26.9		22.4		20.0
Approach LOS	C		C		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 22.5 Intersection LOS: C
Intersection Capacity Utilization 63.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

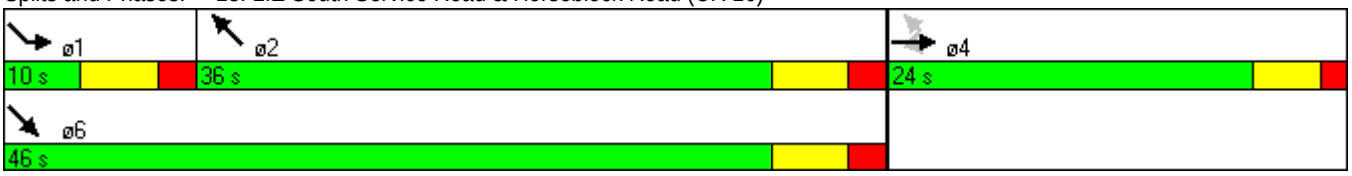


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	137	99	476	308	663	952
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.7	12.7	12.7	13.3	49.3	32.0
Actuated g/C Ratio	0.18	0.18	0.18	0.19	0.70	0.46
v/c Ratio	0.40	0.30	0.64	0.53	0.30	0.67
Control Delay	27.4	25.6	9.9	37.0	3.8	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	25.6	9.9	37.0	3.8	17.0
LOS	C	C	A	D	A	B
Approach Delay		15.4			14.3	17.0
Approach LOS		B			B	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 63.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)

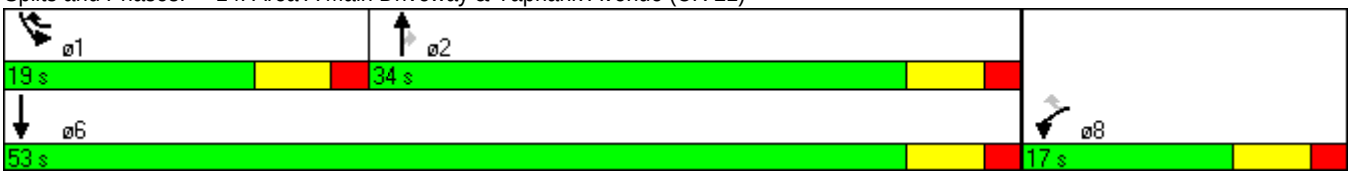


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	199	170	864	559	651	916
Turn Type		pm+ov		Perm	Prot	
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	2	1	6
Switch Phase						
Minimum Initial (s)	1.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.0	10.0	22.0	22.0	10.0	22.0
Total Split (s)	17.0	19.0	34.0	34.0	19.0	53.0
Total Split (%)	24.3%	27.1%	48.6%	48.6%	27.1%	75.7%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	11.4	32.4	29.6	29.6	17.0	50.6
Actuated g/C Ratio	0.16	0.46	0.42	0.42	0.24	0.72
v/c Ratio	0.39	0.14	0.63	0.63	0.85	0.39
Control Delay	27.9	5.6	15.0	5.3	39.7	5.3
Queue Delay	0.0	0.0	0.3	0.3	0.0	0.0
Total Delay	27.9	5.6	15.3	5.6	39.7	5.3
LOS	C	A	B	A	D	A
Approach Delay	17.6		11.5			19.6
Approach LOS	B		B			B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 51 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 59.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 14: Area A Main Driveway & Yaphank Avenue (CR 21)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	421	600	0	0	0	55
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	458	652	0	0	0	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	458					
pX, platoon unblocked						
vC, conflicting volume			1110		458	458
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1110		458	458
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	90
cM capacity (veh/h)			629		561	603

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	458	652	60
Volume Left	0	0	0
Volume Right	0	652	60
cSH	1700	1700	603
Volume to Capacity	0.27	0.38	0.10
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.0	11.6
Lane LOS			B
Approach Delay (s)	0.0		11.6
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

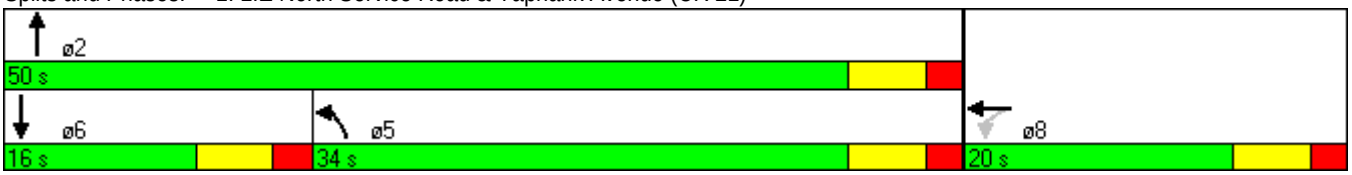
MITIGATED BUILD PM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	7	1274	319	227
Turn Type		Prot		
Protected Phases	8	5	2	6
Permitted Phases				
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	1.0	4.0	12.0	1.0
Minimum Split (s)	7.0	10.0	36.0	7.0
Total Split (s)	20.0	34.0	50.0	16.0
Total Split (%)	28.6%	48.6%	71.4%	22.9%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	16.0	30.0	46.0	12.0
Actuated g/C Ratio	0.23	0.43	0.66	0.17
v/c Ratio	1.47dl	1.02	0.33	0.44
Control Delay	51.4	43.2	3.4	25.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	51.4	43.2	3.4	25.7
LOS	D	D	A	C
Approach Delay	51.4		35.3	25.7
Approach LOS	D		D	C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 18 (26%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 38.3 Intersection LOS: D
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

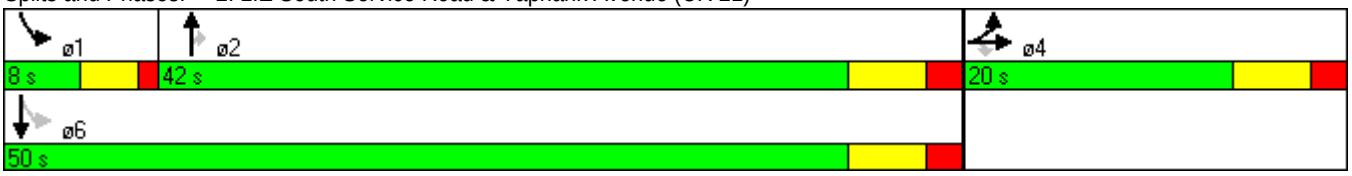


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	74	864	1538	1051	152	669
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	1.0	1.0	4.0	4.0	4.0	12.0
Minimum Split (s)	7.0	7.0	12.0	12.0	8.0	22.0
Total Split (s)	20.0	20.0	42.0	42.0	8.0	50.0
Total Split (%)	28.6%	28.6%	60.0%	60.0%	11.4%	71.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	16.0	16.0	38.0	38.0	46.0	46.0
Actuated g/C Ratio	0.23	0.23	0.54	0.54	0.66	0.66
v/c Ratio	0.45	1.03	0.97	1.16	0.78	0.31
Control Delay	27.4	54.2	24.0	91.5	42.1	0.6
Queue Delay	2.9	0.0	8.8	0.0	0.0	0.0
Total Delay	30.3	54.2	32.8	91.5	42.1	0.6
LOS	C	D	C	F	D	A
Approach Delay	50.5		56.6			8.3
Approach LOS	D		E			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 47.0 Intersection LOS: D
Intersection Capacity Utilization 92.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)

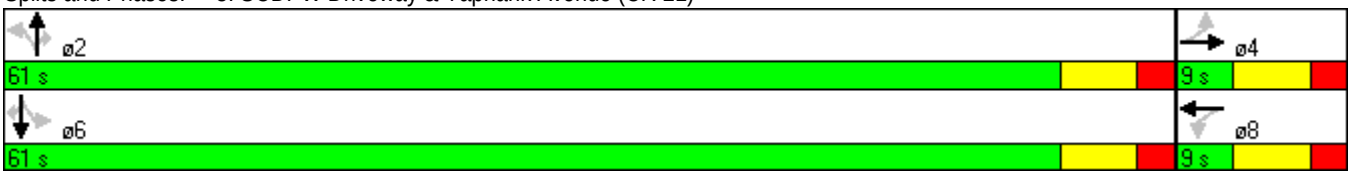


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	18	0	22	0	14	1707	18	13	2051	7
Turn Type	Perm		Perm		Perm		Perm	Perm		Perm
Protected Phases		4		8		2			6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	2	2	2	6	6	6
Switch Phase										
Minimum Initial (s)	1.0	1.0	1.0	1.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.0	7.0	7.0	7.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	9.0	9.0	9.0	9.0	61.0	61.0	61.0	61.0	61.0	61.0
Total Split (%)	12.9%	12.9%	12.9%	12.9%	87.1%	87.1%	87.1%	87.1%	87.1%	87.1%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		8.2		8.2	53.8	53.8	53.8	53.8	53.8	53.8
Actuated g/C Ratio		0.12		0.12	0.77	0.77	0.77	0.77	0.77	0.77
v/c Ratio		0.41		0.74	0.14	0.67	0.02	0.10	0.78	0.01
Control Delay		29.6		48.6	4.8	5.8	0.8	2.6	6.5	0.7
Queue Delay		0.1		0.9	0.0	0.3	0.0	0.0	0.2	0.0
Total Delay		29.7		49.5	4.8	6.0	0.8	2.6	6.8	0.7
LOS		C		D	A	A	A	A	A	A
Approach Delay		29.7		49.5		6.0			6.7	
Approach LOS		C		D		A			A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 53 (76%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 8.4 Intersection LOS: A
Intersection Capacity Utilization 68.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 3: SCDPW Driveway & Yaphank Avenue (CR 21)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	34	1622	14	99	1703
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	7	41	1763	15	105	1812
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)			244			
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	2880	882			1778	
vC1, stage 1 conf vol	1763					
vC2, stage 2 conf vol	1116					
vCu, unblocked vol	2846	291			1438	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	93			71	
cM capacity (veh/h)	111	552			366	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	48	882	882	15	105	906	906
Volume Left	7	0	0	0	105	0	0
Volume Right	41	0	0	15	0	0	0
cSH	356	1700	1700	1700	366	1700	1700
Volume to Capacity	0.13	0.52	0.52	0.01	0.29	0.53	0.53
Queue Length 95th (ft)	11	0	0	0	29	0	0
Control Delay (s)	16.7	0.0	0.0	0.0	18.8	0.0	0.0
Lane LOS	C				C		
Approach Delay (s)	16.7	0.0			1.0		
Approach LOS	C						

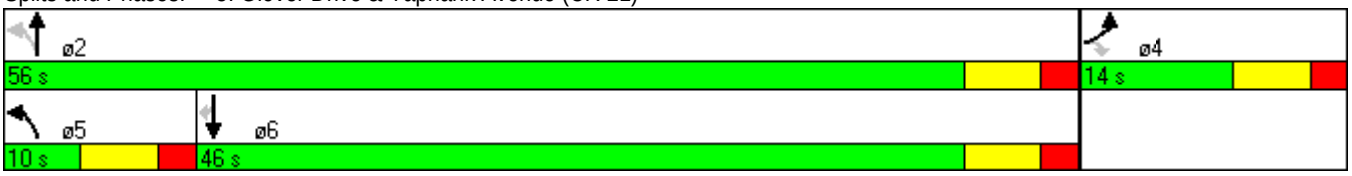
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	355	104	91	1293	1342	390
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	1.0	1.0	4.0	4.0	4.0	4.0
Minimum Split (s)	7.0	7.0	10.0	22.0	22.0	22.0
Total Split (s)	14.0	14.0	10.0	56.0	46.0	46.0
Total Split (%)	20.0%	20.0%	14.3%	80.0%	65.7%	65.7%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	11.2	11.2	50.8	50.8	42.8	42.8
Actuated g/C Ratio	0.16	0.16	0.73	0.73	0.61	0.61
v/c Ratio	0.78	0.35	0.41	0.61	0.71	0.41
Control Delay	41.2	9.2	9.6	5.9	13.3	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	9.2	9.6	5.9	13.3	2.5
LOS	D	A	A	A	B	A
Approach Delay	34.0			6.2	10.9	
Approach LOS	C			A	B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 62.3% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 5: Glover Drive & Yaphank Avenue (CR 21)

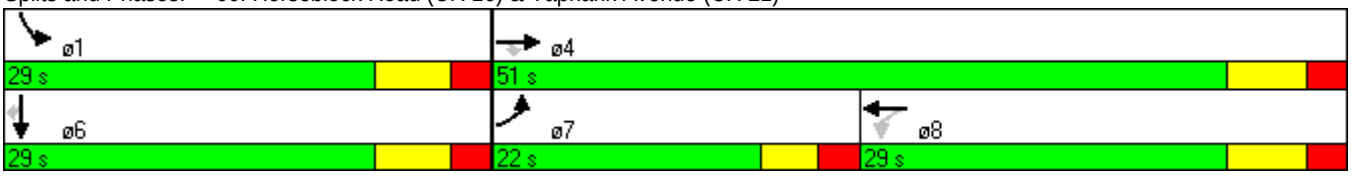


Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations								
Volume (vph)	644	1766	44	29	728	814	458	435
Turn Type	Prot		Perm	Perm		Prot		Perm
Protected Phases	7	4			8	1	6	
Permitted Phases			4	8				6
Detector Phase	7	4	4	8	8	1	6	6
Switch Phase								
Minimum Initial (s)	3.0	20.0	20.0	20.0	20.0	4.0	8.0	8.0
Minimum Split (s)	10.0	27.3	27.3	27.3	27.3	11.0	15.0	15.0
Total Split (s)	22.0	51.0	51.0	29.0	29.0	29.0	29.0	29.0
Total Split (%)	27.5%	63.8%	63.8%	36.3%	36.3%	36.3%	36.3%	36.3%
Yellow Time (s)	3.5	4.8	4.8	4.8	4.8	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-3.3	-3.3	-3.0	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag			
Lead-Lag Optimize?	Yes			Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	18.0	47.0	47.0	25.0	25.0	25.0	25.0	25.0
Actuated g/C Ratio	0.22	0.59	0.59	0.31	0.31	0.31	0.31	0.31
v/c Ratio	1.04	1.02	0.05	0.37	0.70	0.90	1.05	0.59
Control Delay	66.2	31.4	1.2	36.8	28.3	40.4	81.2	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	31.4	1.2	36.8	28.3	40.4	81.2	6.0
LOS	E	C	A	D	C	D	F	A
Approach Delay		40.0			28.6		44.5	
Approach LOS		D			C		D	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 37 (46%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 39.9 Intersection LOS: D
Intersection Capacity Utilization 108.4% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)

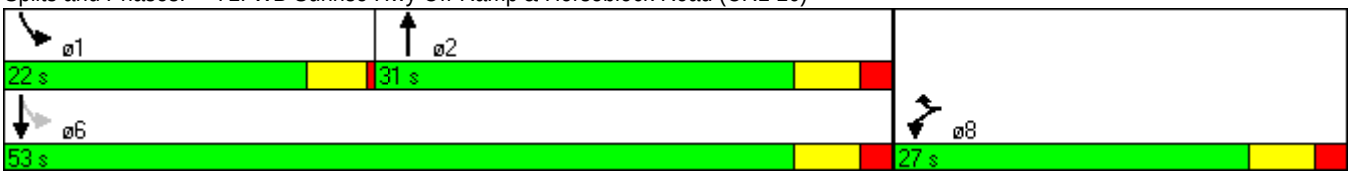


Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	69	766	247	279	2197
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	8.0	22.0
Total Split (s)	27.0	27.0	31.0	22.0	53.0
Total Split (%)	33.8%	33.8%	38.8%	27.5%	66.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.0	2.0	2.0	0.5	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	13.1	13.1	42.2	58.9	58.9
Actuated g/C Ratio	0.16	0.16	0.53	0.74	0.74
v/c Ratio	0.26	0.72	0.47	0.61	0.94
Control Delay	29.5	6.3	5.4	10.5	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	6.3	5.4	10.5	19.6
LOS	C	A	A	B	B
Approach Delay	8.2		5.4		18.6
Approach LOS	A		A		B

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 13.9 Intersection LOS: B
Intersection Capacity Utilization 71.2% ICU Level of Service C
Analysis Period (min) 15

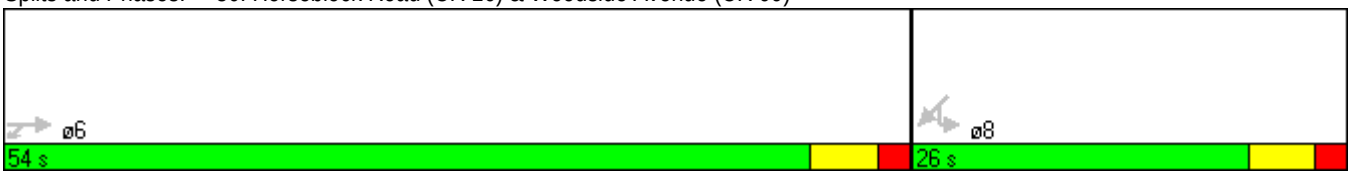
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	841	14	517
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	50.7	50.7	21.3
Actuated g/C Ratio	0.63	0.63	0.27
v/c Ratio	0.43	0.02	0.79
Control Delay	3.8	0.6	32.4
Queue Delay	0.0	0.0	0.0
Total Delay	3.8	0.6	32.4
LOS	A	A	C
Approach Delay	3.7		32.4
Approach LOS	A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 47.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

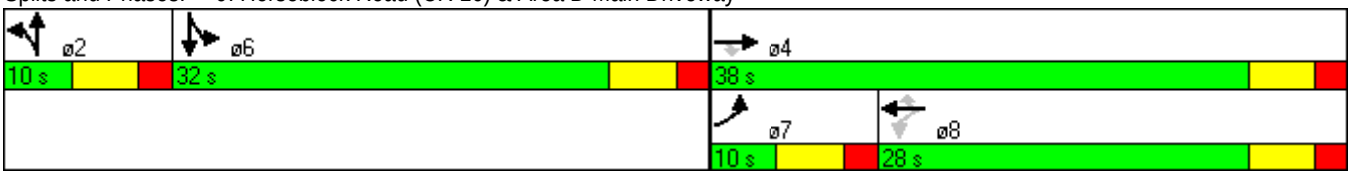


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	132	1219	3	3	828	254	21	0	1084	0
Turn Type	Prot		Perm	Perm		Perm	Split		Split	
Protected Phases	7	4			8		2	2	6	6
Permitted Phases			4	8		8				
Detector Phase	7	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0	4.0	4.0
Minimum Split (s)	10.0	22.0	22.0	22.0	22.0	22.0	7.0	7.0	22.0	22.0
Total Split (s)	10.0	38.0	38.0	28.0	28.0	28.0	10.0	10.0	32.0	32.0
Total Split (%)	12.5%	47.5%	47.5%	35.0%	35.0%	35.0%	12.5%	12.5%	40.0%	40.0%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	6.0	34.0	34.0	24.0	24.0	24.0	6.0	6.0	28.0	28.0
Actuated g/C Ratio	0.08	0.42	0.42	0.30	0.30	0.30	0.08	0.08	0.35	0.35
v/c Ratio	0.60	0.95	0.01	0.03	0.85	0.27	0.19	0.22	0.98	0.91
Control Delay	46.3	43.1	12.7	11.7	26.9	4.2	38.3	29.9	48.9	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	43.1	12.7	11.7	26.9	4.2	38.3	29.9	48.9	34.4
LOS	D	D	B	B	C	A	D	C	D	C
Approach Delay		43.4			21.5			33.8		43.7
Approach LOS		D			C			C		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 6 (8%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 37.9 Intersection LOS: D
Intersection Capacity Utilization 84.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

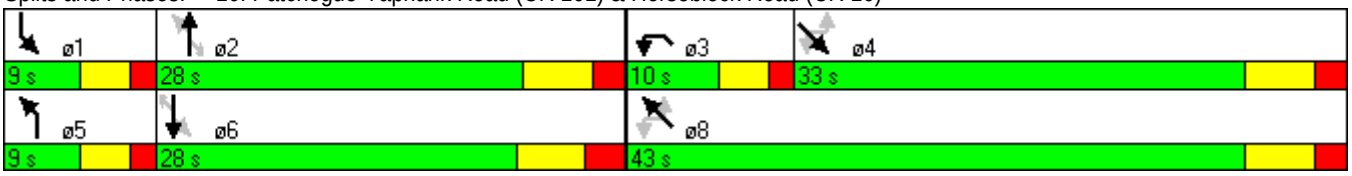


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	40	891	56	80	742	72	19	714	95	190	976	164
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	28.0	28.0	9.0	28.0	28.0	33.0	33.0	33.0	10.0	43.0	43.0
Total Split (%)	11.3%	35.0%	35.0%	11.3%	35.0%	35.0%	41.3%	41.3%	41.3%	12.5%	53.8%	53.8%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.0	4.0	4.2	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	1.5	2.0	2.0	1.5	2.5	2.5	2.0	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.5	-2.5	-2.2	-2.2	-2.2	-0.5	-2.2	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.8	25.8	25.8	30.6	27.6	27.6	29.0	29.0	29.0	39.0	39.0	39.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.34	0.34	0.36	0.36	0.36	0.49	0.49	0.49
v/c Ratio	0.24	0.95	0.13	0.47	0.73	0.15	0.20	0.70	0.17	1.04	0.71	0.23
Control Delay	17.5	46.5	6.6	23.0	28.6	5.9	20.6	24.4	6.0	93.7	19.7	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	46.5	6.6	23.0	28.6	5.9	20.6	24.4	6.0	93.7	19.7	3.0
LOS	B	D	A	C	C	A	C	C	A	F	B	A
Approach Delay		43.1			26.3			22.2			28.2	
Approach LOS		D			C			C			C	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 30.1 Intersection LOS: C
Intersection Capacity Utilization 77.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

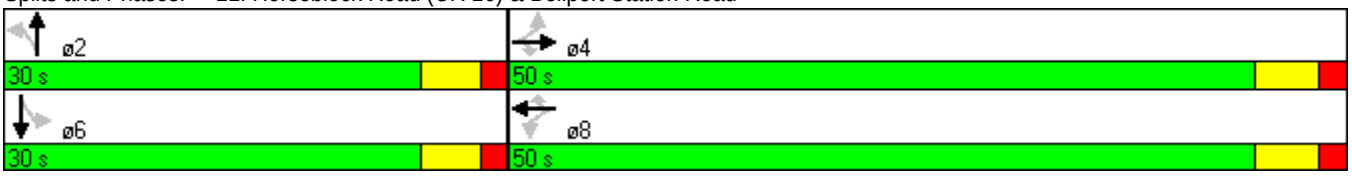


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	53	741	384	7	967	123	246	204	116	200
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		26.0		26.0
Actuated g/C Ratio		0.58	0.58		0.58	0.58		0.32		0.32
v/c Ratio		0.53	0.38		0.63	0.17		1.29		0.79
Control Delay		11.9	2.0		19.5	10.8		176.3		37.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		11.9	2.0		19.5	10.8		176.3		37.4
LOS		B	A		B	B		F		D
Approach Delay		8.7			18.5			176.3		37.4
Approach LOS		A			B			F		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 46 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 40.4 Intersection LOS: D
Intersection Capacity Utilization 99.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

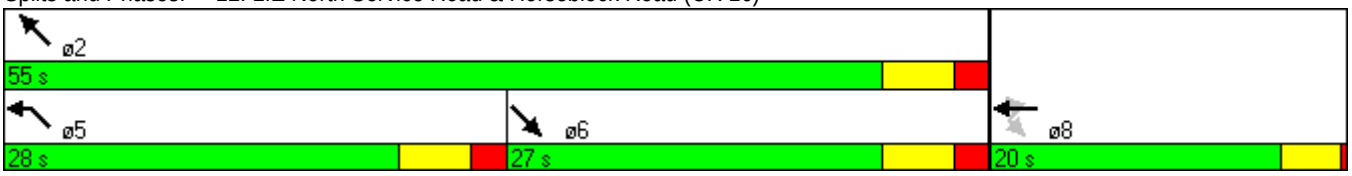


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	370	135	1043	997	752
Turn Type		Perm		Prot	
Protected Phases	8		6	5	2
Permitted Phases		8			
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	9.8	9.8	22.0	10.0	22.0
Total Split (s)	20.0	20.0	27.0	28.0	55.0
Total Split (%)	26.7%	26.7%	36.0%	37.3%	73.3%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.0	16.0	23.0	24.0	51.0
Actuated g/C Ratio	0.21	0.21	0.31	0.32	0.68
v/c Ratio	0.94	0.33	0.98	1.00	0.65
Control Delay	51.5	7.1	49.9	49.0	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	7.1	49.9	49.0	15.3
LOS	D	A	D	D	B
Approach Delay	44.1		49.9		34.5
Approach LOS	D		D		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 41.2 Intersection LOS: D
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

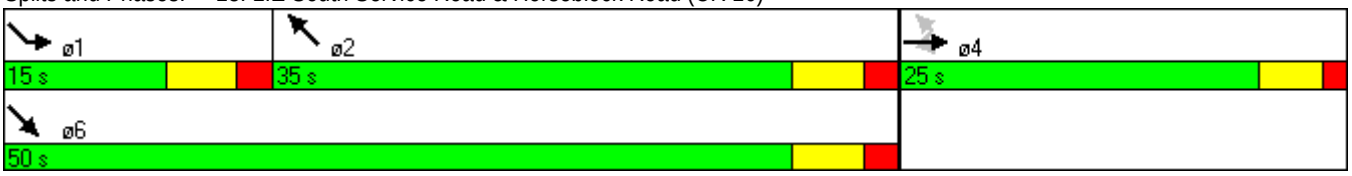


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	274	152	647	469	876	1403
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	25.0	25.0	25.0	15.0	50.0	35.0
Total Split (%)	33.3%	33.3%	33.3%	20.0%	66.7%	46.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	20.0	20.0	12.0	47.0	31.0
Actuated g/C Ratio	0.27	0.27	0.27	0.16	0.63	0.41
v/c Ratio	0.60	0.35	0.86	0.95	0.44	0.97
Control Delay	29.1	24.0	28.9	51.9	6.7	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	24.0	28.9	51.9	6.7	40.0
LOS	C	C	C	D	A	D
Approach Delay		28.3			22.5	40.0
Approach LOS		C			C	D

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.97
Intersection Signal Delay: 30.4 Intersection LOS: C
Intersection Capacity Utilization 88.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)

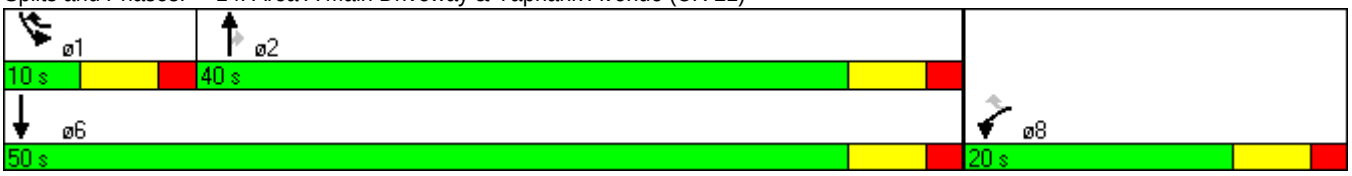


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	577	949	1553	217	118	1493
Turn Type		pm+ov		Perm	Prot	
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	2	1	6
Switch Phase						
Minimum Initial (s)	1.0	4.0	4.0	4.0	4.0	1.0
Minimum Split (s)	7.0	10.0	22.0	22.0	10.0	7.0
Total Split (s)	20.0	10.0	40.0	40.0	10.0	50.0
Total Split (%)	28.6%	14.3%	57.1%	57.1%	14.3%	71.4%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	15.9	26.0	36.0	36.0	6.1	46.1
Actuated g/C Ratio	0.23	0.37	0.51	0.51	0.09	0.66
v/c Ratio	0.80	0.98	0.93	0.25	0.43	0.70
Control Delay	35.1	47.9	22.9	1.3	32.7	7.8
Queue Delay	0.0	0.0	3.6	0.0	0.0	0.2
Total Delay	35.1	47.9	26.4	1.3	32.7	8.0
LOS	D	D	C	A	C	A
Approach Delay	43.1		23.4			9.8
Approach LOS	D		C			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 67 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 25.0 Intersection LOS: C
Intersection Capacity Utilization 82.8% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 14: Area A Main Driveway & Yaphank Avenue (CR 21)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1142	132	0	0	0	182
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1241	143	0	0	0	198
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	441					
pX, platoon unblocked						
vC, conflicting volume			1385		1241	1241
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1385		1241	1241
tC, single (s)			4.1		6.4	*5.7
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	22
cM capacity (veh/h)			495		193	255

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	1241	143	198
Volume Left	0	0	0
Volume Right	0	143	198
cSH	1700	1700	255
Volume to Capacity	0.73	0.08	0.78
Queue Length 95th (ft)	0	0	144
Control Delay (s)	0.0	0.0	55.0
Lane LOS			F
Approach Delay (s)	0.0		55.0
Approach LOS			F

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

* User Entered Value

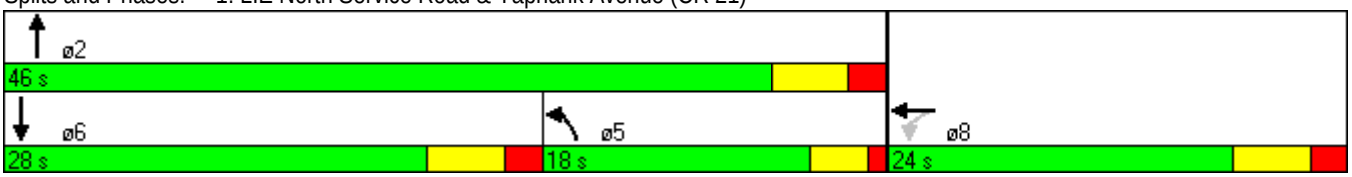
MITIGATED BUILD SATURDAY PEAK HOUR LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	6	535	215	150
Turn Type		Prot		
Protected Phases	8	5	2	6
Permitted Phases				
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	18.0	46.0	28.0
Total Split (%)	34.3%	25.7%	65.7%	40.0%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	19.7	14.0	42.3	24.3
Actuated g/C Ratio	0.28	0.20	0.60	0.35
v/c Ratio	1.46dl	0.92	0.24	0.19
Control Delay	33.5	42.8	2.3	11.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	33.5	42.8	2.3	11.4
LOS	C	D	A	B
Approach Delay	33.5		31.2	11.4
Approach LOS	C		C	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

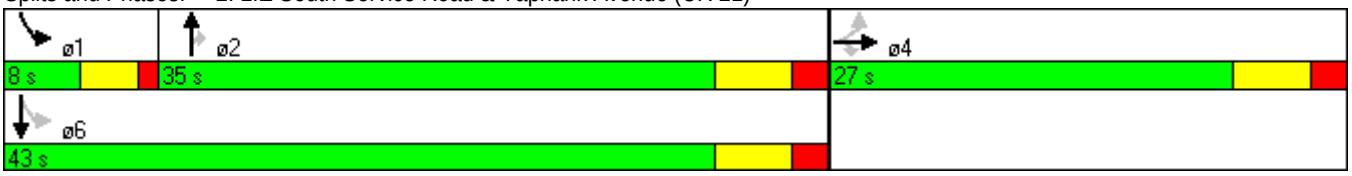


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	414	927	674	307	258	500
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.0	23.0	31.0	31.0	39.0	39.0
Actuated g/C Ratio	0.33	0.33	0.44	0.44	0.56	0.56
v/c Ratio	0.93	0.89	0.52	0.49	1.00	0.30
Control Delay	48.0	22.6	7.8	4.3	60.2	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.0	22.6	7.8	4.3	60.2	1.3
LOS	D	C	A	A	E	A
Approach Delay	31.3		6.7			21.4
Approach LOS	C		A			C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 21.2 Intersection LOS: C
Intersection Capacity Utilization 69.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)

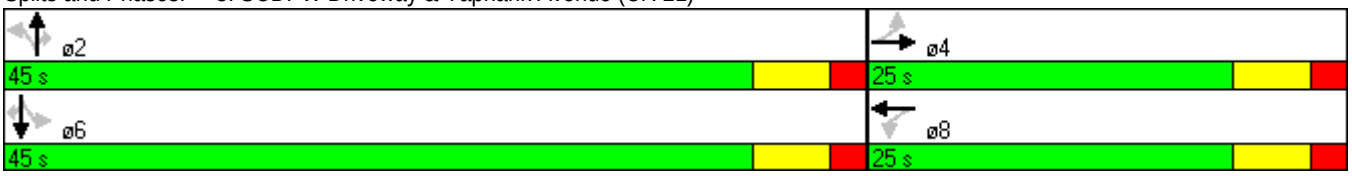


Lane Group	EBL	EBT	WBT	NBL	NBT	SBT	SBR
Lane Configurations							
Volume (vph)	7	0	0	6	1334	944	5
Turn Type	Perm			Perm			Perm
Protected Phases		4	8		2	6	
Permitted Phases	4			2			6
Detector Phase	4	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	25.0	25.0	25.0	45.0	45.0	45.0	45.0
Total Split (%)	35.7%	35.7%	35.7%	64.3%	64.3%	64.3%	64.3%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)		8.0	7.8	66.6	66.6	66.6	66.6
Actuated g/C Ratio		0.11	0.11	0.95	0.95	0.95	0.95
v/c Ratio		0.08	0.02	0.01	0.44	0.29	0.00
Control Delay		21.3	0.3	1.3	1.7	1.0	1.2
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		21.3	0.3	1.3	1.7	1.0	1.2
LOS		C	A	A	A	A	A
Approach Delay		21.3	0.3		1.7	1.0	
Approach LOS		C	A		A	A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 60 (86%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.44
Intersection Signal Delay: 1.6 Intersection LOS: A
Intersection Capacity Utilization 50.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: SCDPW Driveway & Yaphank Avenue (CR 21)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	75	1231	29	84	875
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.91	0.91
Hourly flow rate (vph)	16	88	1448	34	92	962
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)			244			
pX, platoon unblocked	0.85	0.85			0.85	
vC, conflicting volume	2114	724			1482	
vC1, stage 1 conf vol	1448					
vC2, stage 2 conf vol	665					
vCu, unblocked vol	1958	325			1216	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	85			81	
cM capacity (veh/h)	186	571			484	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	105	724	724	34	92	481	481
Volume Left	16	0	0	0	92	0	0
Volume Right	88	0	0	34	0	0	0
cSH	431	1700	1700	1700	484	1700	1700
Volume to Capacity	0.24	0.43	0.43	0.02	0.19	0.28	0.28
Queue Length 95th (ft)	24	0	0	0	17	0	0
Control Delay (s)	16.0	0.0	0.0	0.0	14.2	0.0	0.0
Lane LOS	C				B		
Approach Delay (s)	16.0	0.0			1.2		
Approach LOS	C						

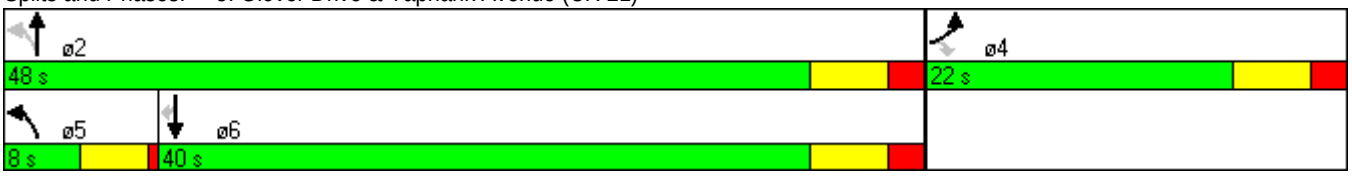
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	54.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	390	101	80	890	505	383
Turn Type		Perm	pm+pt			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	8.0	22.0	22.0	22.0
Total Split (s)	22.0	22.0	8.0	48.0	40.0	40.0
Total Split (%)	31.4%	31.4%	11.4%	68.6%	57.1%	57.1%
Yellow Time (s)	4.0	4.0	3.5	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Min	C-Min	C-Min
Act Effct Green (s)	16.9	16.9	45.1	45.1	36.0	36.0
Actuated g/C Ratio	0.24	0.24	0.64	0.64	0.51	0.51
v/c Ratio	0.55	0.25	0.18	0.46	0.32	0.45
Control Delay	25.4	5.6	5.1	6.0	12.6	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	5.6	5.1	6.0	12.6	3.9
LOS	C	A	A	A	B	A
Approach Delay	21.4			6.0	8.9	
Approach LOS	C			A	A	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 10.3 Intersection LOS: B
Intersection Capacity Utilization 42.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: Glover Drive & Yaphank Avenue (CR 21)

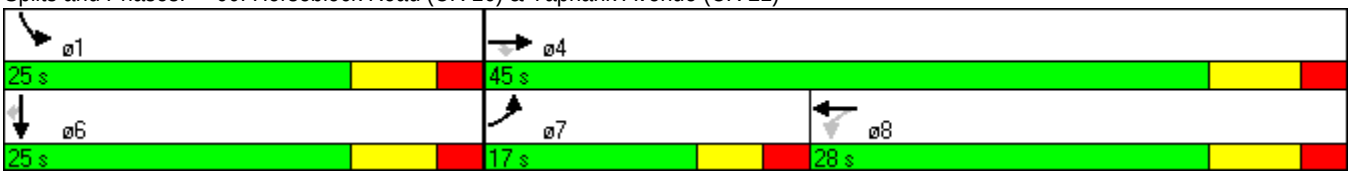


Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations								
Volume (vph)	228	856	48	41	731	325	103	148
Turn Type	Prot		Perm	Perm		Prot		Perm
Protected Phases	7	4			8	1	6	
Permitted Phases			4	8				6
Detector Phase	7	4	4	8	8	1	6	6
Switch Phase								
Minimum Initial (s)	3.0	20.0	20.0	20.0	20.0	4.0	8.0	8.0
Minimum Split (s)	10.0	27.3	27.3	27.3	27.3	11.0	15.0	15.0
Total Split (s)	17.0	45.0	45.0	28.0	28.0	25.0	25.0	25.0
Total Split (%)	24.3%	64.3%	64.3%	40.0%	40.0%	35.7%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	4.8	4.8	4.5	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-3.3	-3.3	-3.0	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag			
Lead-Lag Optimize?	Yes			Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	12.7	46.2	46.2	29.5	29.5	15.8	15.8	15.8
Actuated g/C Ratio	0.18	0.66	0.66	0.42	0.42	0.23	0.23	0.23
v/c Ratio	0.46	0.44	0.05	0.23	0.54	0.48	0.37	0.31
Control Delay	27.9	6.9	1.8	19.1	18.0	28.1	25.2	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	6.9	1.8	19.1	18.0	28.1	25.2	11.8
LOS	C	A	A	B	B	C	C	B
Approach Delay		10.9			18.0		24.1	
Approach LOS		B			B		C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 59.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)

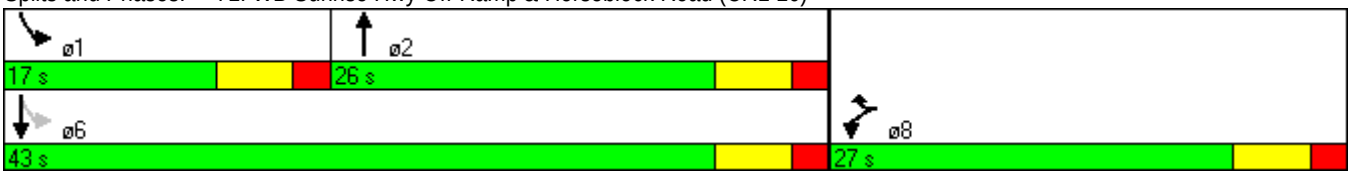


Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	58	835	653	231	897
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	10.0	22.0
Total Split (s)	27.0	27.0	26.0	17.0	43.0
Total Split (%)	38.6%	38.6%	37.1%	24.3%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.3	17.3	29.4	44.7	44.7
Actuated g/C Ratio	0.25	0.25	0.42	0.64	0.64
v/c Ratio	0.16	0.79	0.65	0.59	0.44
Control Delay	19.0	10.8	20.4	14.4	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	10.8	20.4	14.4	8.1
LOS	B	B	C	B	A
Approach Delay	11.4		20.4		9.4
Approach LOS	B		C		A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 13.2 Intersection LOS: B
Intersection Capacity Utilization 59.4% ICU Level of Service B
Analysis Period (min) 15

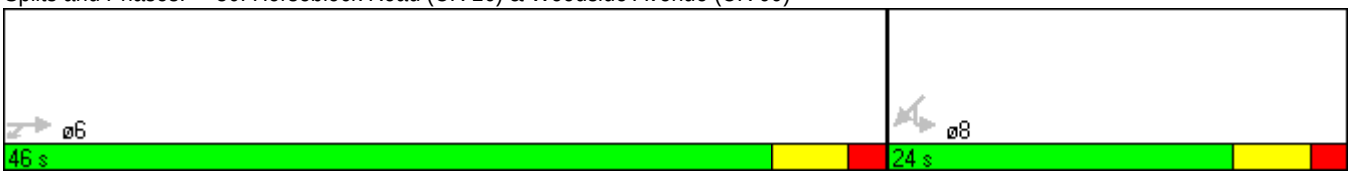
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	584	18	291
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	48.3	48.3	13.7
Actuated g/C Ratio	0.69	0.69	0.20
v/c Ratio	0.27	0.02	0.48
Control Delay	2.4	0.7	26.1
Queue Delay	0.0	0.0	0.0
Total Delay	2.4	0.7	26.1
LOS	A	A	C
Approach Delay	2.4		26.1
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 31.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

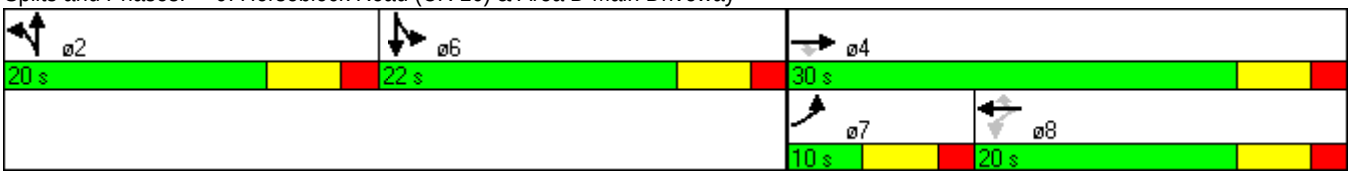


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	85	647	163	114	670	155	144	0	175	0
Turn Type	Prot		Perm	Perm		Perm	Split		Split	
Protected Phases	7	4			8		2	2	6	6
Permitted Phases			4	8		8				
Detector Phase	7	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0
Total Split (s)	10.0	30.0	30.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0
Total Split (%)	13.9%	41.7%	41.7%	27.8%	27.8%	27.8%	27.8%	27.8%	30.6%	30.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	9.1	32.7	32.7	21.9	21.9	21.9	16.0	16.0	11.3	11.3
Actuated g/C Ratio	0.13	0.45	0.45	0.30	0.30	0.30	0.22	0.22	0.16	0.16
v/c Ratio	0.21	0.42	0.21	0.55	0.67	0.17	0.41	0.34	0.35	0.26
Control Delay	29.1	14.6	3.1	37.3	28.4	4.8	27.7	3.3	28.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	14.6	3.1	37.3	28.4	4.8	27.7	3.3	28.5	1.2
LOS	C	B	A	D	C	A	C	A	C	A
Approach Delay		13.9			25.5			14.8		17.0
Approach LOS		B			C			B		B

Intersection Summary

Cycle Length: 72
Actuated Cycle Length: 72
Offset: 24 (33%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 53.4% ICU Level of Service A
Analysis Period (min) 15

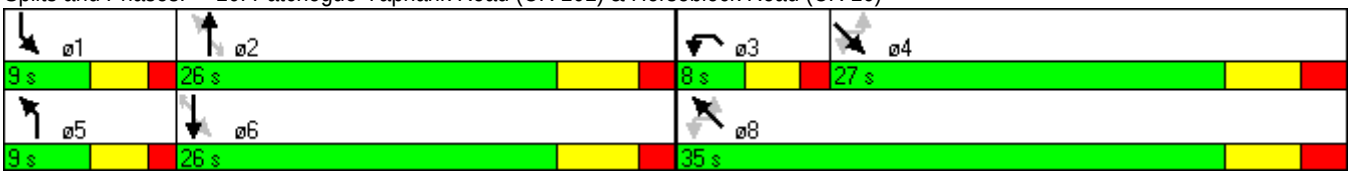
Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	42	666	64	60	584	55	72	577	33	97	610	61
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	28.6	25.6	25.6	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.41	0.37	0.37	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.15	0.58	0.12	0.24	0.51	0.10	0.32	0.55	0.06	0.42	0.40	0.08
Control Delay	12.5	21.1	5.6	13.8	20.0	5.8	13.8	12.9	2.9	17.4	14.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	21.1	5.6	13.8	20.0	5.8	13.8	12.9	2.9	17.4	14.1	3.8
LOS	B	C	A	B	B	A	B	B	A	B	B	A
Approach Delay		19.3			18.3			12.5			13.7	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

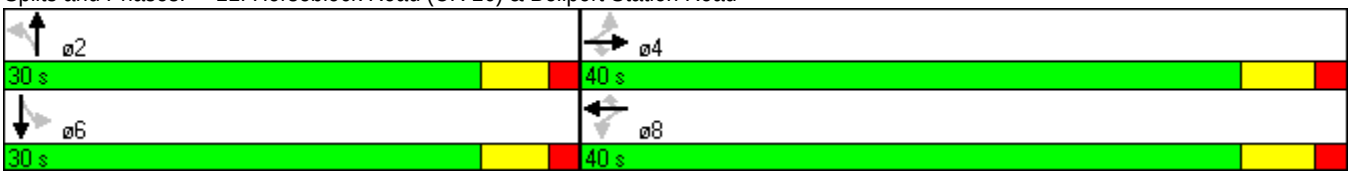


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	28	614	393	6	676	55	308	170	47	120
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.44	0.43		0.44	0.08		1.07		0.38
Control Delay		11.7	2.5		9.6	2.9		87.0		16.5
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		11.7	2.5		9.6	2.9		87.0		16.5
LOS		B	A		A	A		F		B
Approach Delay		8.2			9.1			87.0		16.5
Approach LOS		A			A			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 24.5 Intersection LOS: C
Intersection Capacity Utilization 86.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

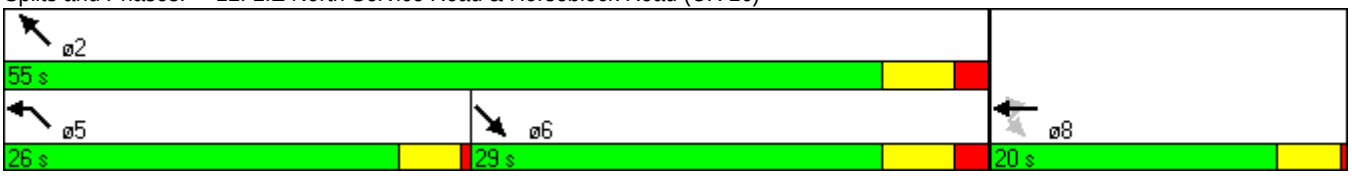


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	353	269	879	528	772
Turn Type		Perm		Prot	
Protected Phases	8		6	5	2
Permitted Phases		8			
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	8.0	22.0
Total Split (s)	20.0	20.0	29.0	26.0	55.0
Total Split (%)	26.7%	26.7%	38.7%	34.7%	73.3%
Yellow Time (s)	3.5	3.5	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.8	14.8	30.9	17.3	52.2
Actuated g/C Ratio	0.20	0.20	0.41	0.23	0.70
v/c Ratio	0.69	0.62	0.62	0.70	0.63
Control Delay	33.2	13.5	20.5	36.3	13.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	13.5	20.5	36.3	13.0
LOS	C	B	C	D	B
Approach Delay	25.9		20.5		22.5
Approach LOS	C		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 22.7 Intersection LOS: C
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

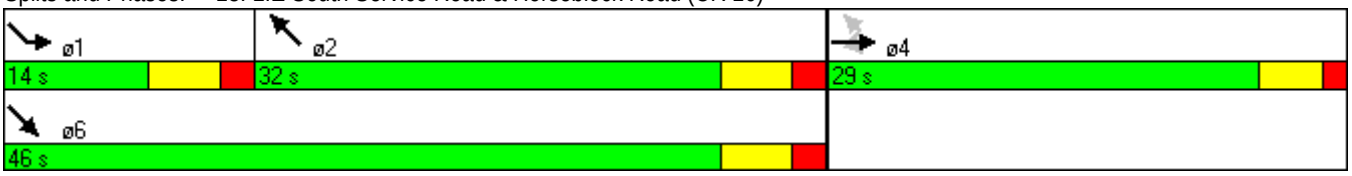


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	133	93	454	285	654	1135
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.1	13.1	13.1	14.0	53.9	35.8
Actuated g/C Ratio	0.17	0.17	0.17	0.19	0.72	0.48
v/c Ratio	0.40	0.29	0.66	0.52	0.30	0.72
Control Delay	29.5	27.4	12.8	35.3	4.4	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	27.4	12.8	35.3	4.4	20.6
LOS	C	C	B	D	A	C
Approach Delay		18.1			13.8	20.6
Approach LOS		B			B	C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 64.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)

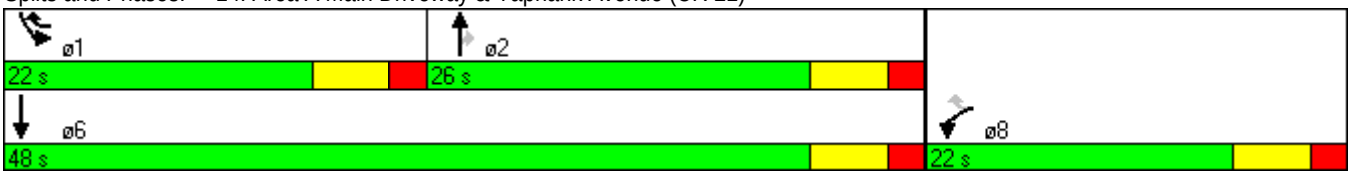


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	199	170	768	559	651	724
Turn Type		pm+ov		Perm	Prot	
Protected Phases	8	1	2		1	6
Permitted Phases		8		2		
Detector Phase	8	1	2	2	1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	10.0	22.0	22.0	10.0	22.0
Total Split (s)	22.0	22.0	26.0	26.0	22.0	48.0
Total Split (%)	31.4%	31.4%	37.1%	37.1%	31.4%	68.6%
Yellow Time (s)	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
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	C-Min	C-Min	None	C-Min
Act Effct Green (s)	11.7	36.5	25.5	25.5	20.8	50.3
Actuated g/C Ratio	0.17	0.52	0.36	0.36	0.30	0.72
v/c Ratio	0.38	0.12	0.65	0.65	0.69	0.31
Control Delay	27.4	5.5	21.0	7.4	23.7	2.3
Queue Delay	0.0	0.0	0.1	0.2	0.0	0.0
Total Delay	27.4	5.5	21.1	7.6	23.7	2.3
LOS	C	A	C	A	C	A
Approach Delay	17.3		15.4			12.4
Approach LOS	B		B			B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 14.3 Intersection LOS: B
Intersection Capacity Utilization 59.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 14: Area A Main Driveway & Yaphank Avenue (CR 21)



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	380	600	0	0	0	55
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	413	652	0	0	0	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	458					
pX, platoon unblocked						
vC, conflicting volume			1065		413	413
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1065		413	413
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			654		595	639

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	413	652	60
Volume Left	0	0	0
Volume Right	0	652	60
cSH	1700	1700	639
Volume to Capacity	0.24	0.38	0.09
Queue Length 95th (ft)	0	0	8
Control Delay (s)	0.0	0.0	11.2
Lane LOS			B
Approach Delay (s)	0.0		11.2
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX N: AS-OF RIGHT BUILD ALTERNATIVE TRIP DISTRIBUTION AND ASSIGNMENT

Trip Distribution & Assignment Spreadsheet

Growth Factor: 2.04% for 15 years, to 2025
15-year growth: 1.354

Passby Percentages
0% Weekday
0% Weekend

Seasonal Factors:	Weekday	Saturday
November	1.03	0.858
June	1.105	0.946
Monthly Adjustment	*1.073*	*1.103*

Existing volumes X 1.354 to show 15 years of ambient growth plus trips generated by other planned projects:

As-of-right Buildout-Area A	AM	MID	PM	SAT
Enter	7	18	21	18
Exit	22	16	12	16
Total	29	34	33	34

As-of-right Buildout-Area B	AM	MID	PM	SAT
Enter	942	132	228	132
Exit	127	114	1041	114
Total	1069	246	1269	246

As-of-right Buildout-Area C	AM	MID	PM	SAT
Enter	284	35	64	35
Exit	39	30	312	30
Total	323	65	376	65

As-of-right Buildout-Area D	AM	MID	PM	SAT
Enter	949	119	214	119
Exit	130	101	1046	101
Total	1079	220	1260	220

AM PHF	MID PHF	PM PHF	SAT PHF	Dir.	Mvmt.	2010 Existing Volumes AM	MID	PM	SAT	Seasonally Adjust to JUNE 2010 AM	MID	PM	SAT	Total Other Project Trips AM	MID	PM	SAT	2025 No Build Volumes AM	MID	PM	SAT
INTERSECTION: Yaphank Avenue (CR 21) and LIE North Service Road																					
				NB	Left	217	218	244	126	217	218	244	126	124	40	71	40	418	336	402	211
0.84	0.85	0.84	0.82		Thr	107	189	222	147	107	189	222	147	6	15	18	15	151	271	319	215
0.84	0.77	0.93	0.82	SB	Thr	198	143	164	107	198	143	164	107	6	5	4	5	275	199	227	150
					Right	72	32	25	40	72	32	25	40	16	12	10	12	114	56	44	67
				WB	Left	172	95	147	72	172	95	147	72	250	37	68	37	483	166	268	135
0.86	0.88	0.82	0.86		Thr	1	0	5	4	1	0	5	4	0	0	0	0	2	0	7	6
					Right	48	35	64	31	48	35	64	31	2	3	4	3	67	51	91	45
																		1,510	1,079	1,358	829
INTERSECTION: Yaphank Avenue (CR 21) and LIE South Service Road																					
0.92	0.93	0.85	0.81	NB	Thr	314	369	437	227	314	369	437	227	125	42	74	42	551	542	666	350
					Right	240	115	193	85	240	115	193	85	42	56	200	56	367	212	462	172
				SB	Left	40	51	65	43	40	51	65	43	4	3	3	3	59	73	91	62
0.86	0.96	0.95	0.86		Thr	345	209	310	132	345	209	310	132	251	37	68	37	719	320	488	216
				EB	Left	15	33	51	43	15	33	51	43	6	13	16	13	27	58	86	72
0.87	0.96	0.85	0.86		Thr	0	4	1	6	0	4	1	6	0	0	0	0	0	6	2	9
					Right	255	158	316	136	255	158	316	136	125	45	120	45	471	259	548	230
																		2,194	1,470	2,343	1,111
INTERSECTION: Yaphank Avenue (CR 21) and SCDPW Driveway																					
				NB	Left	26	11	10	4	26	11	10	4	0	0	0	0	36	15	14	6
0.97	0.88	0.91	0.87		Thr	604	305	521	288	604	305	521	288	167	97	273	97	985	510	979	487
					Right	61	23	13	0	61	23	13	0	0	0	0	0	83	32	18	0
				SB	Left	83	33	9	0	83	33	9	0	0	0	0	0	113	45	13	0
0.93	0.92	0.97	0.96		Thr	442	342	671	246	442	342	671	246	376	82	187	82	975	546	1096	416
					Right	22	16	5	3	22	16	5	3	0	0	0	0	30	22	7	5
				EB	Left	1	27	13	5	1	27	13	5	0	0	0	0	2	37	18	7
0.50	0.66	0.59	0.50		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Right	9	31	20	5	9	31	20	5	0	0	0	0	13	42	28	7
				WB	Left	11	14	16	0	11	14	16	0	0	0	0	0	15	19	22	0
0.56	0.82	0.43	0.50		Thr	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0
					Right	18	34	34	2	18	34	34	2	0	0	0	0	25	47	47	3
																		2,277	1,317	2,242	931
INTERSECTION: Yaphank Avenue (CR 21) and Gerard Road																					
0.88	0.94	0.92	0.79	NB	Thr	574	339	460	217	574	339	460	217	151	90	271	90	929	549	894	384
					Right	11	9	10	21	11	9	10	21	0	0	0	0	15	13	14	29
				SB	Left	24	33	73	62	24	33	73	62	0	0	0	0	33	45	99	84
0.85	0.89	0.94	0.91		Thr	240	235	420	201	240	235	420	201	379	74	179	74	704	393	748	347
0.79	0.65	0.83	0.77	WB	Left	16	9	8	10	16	9	8	10	0	0	0	0	22	13	11	14
					Right	82	38	25	55	82	38	25	55	0	0	0	0	112	52	34	75
																		1,815	1,065	1,800	933
INTERSECTION: Yaphank Avenue (CR 21) and Glover Drive																					
				NB	Left	95	56	37	26	95	56	37	26	0	0	0	0	129	76	51	36
0.88	0.85	0.88	0.79		Thr	544	268	343	192	544	268	343	192	151	90	271	90	888	453	736	350
0.89	0.85	0.90	0.85	SB	Thr	208	186	411	177	208	186	411	177	379	74	179	74	661	326	736	314
					Right	48	44	17	24	48	44	17	24	0	0	0	0	65	60	24	33
	0.82	0.68	0.53	EB	Left	41	84	127	52	41	84	127	52	0	0	0	0	56	114	172	71
					Right	24	57	60	47	24	57	60	47	0	0	0	0	33	78	82	64
																		1,832	1,107	1,801	868
INTERSECTION: Yaphank Avenue (CR 21) and Horseblock Road (CR 16)																					
				NB	Left	0	2	1	3	0	2	1	3	0	0	0	0	0	3	2	5
0.42	0.42	0.58	0.75		Thr	2	2	2	0	2	2	2	0	0	0	0	0	3	3	3	0
					Right	3	1	4	3	3	1	4	3	0	0	0	0	5	2	6	5
				SB	Left	122	146	353	121	122	146	353	121	27	22	88	22	193	220	566	186
0.83	0.91	0.90	0.93		Thr	74	71	223	55	74	71	223	55	4	3	2	3	105	100	304	78
					Right	42	64	53	37	42	64	53	37	294	44	149	44	351	131	221	95
				EB	Left	57	60	61	45	57	60	61	45	52	51	160	51	130	133	243	112
0.89	0.94	0.87	0.86		Thr	250	361	753	537	250	361	753	537	58	66	285	66	397	555	1305	793
					Right	23	26	32	35	23	26	32	35	0	0	0	0	32	36	44	48
				WB	Left	30	58	21	30	30	58	21	30	0	0	0	0	41	79	29	41
0.95	0.98	0.95	0.90		Thr	515	693	365	440	515	693	365	440	343	44	96	44	1041	983	591	640
					Right	552	235	293	180	552	235	293	180	161	37	60	37	909	356	457	281
																		3,207	2,601	3,771	2,284
INTERSECTION: Yaphank Avenue/Horseblock Road and Sunrise Highway Exit 57																					
				NB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.92	0.96	0.86	0.87	NB	Thr	774	385	154	359	774	385	154	359	35	8	13	8	1083	530	222	495
					Right	48	51	404	127	48	51	404	127	0	0	0	0	65	70	547	172
				SB	Left	49	102	206	170	49	102	206	170	0	0	0	0	67	139	279	231
0.94	0.91	0.90	0.91		Thr	328	414	851	451	328	414	851	451	75	85	335	85	520	646	1488	696
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				WB	Left	31	104	49	41	31	104	49	41	2	2	2	2	44	143	69	58
0.91	0.92	0.95	0.84		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Right	340	583	246	277	340	583	246	277	469	71	141	71	930	861	475	447
																		2,709	2,389	3,080	2,099
INTERSECTION: Horseblock Road (CR 16) and Woodside Avenue (CR 99)																					
						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
--	0.42	0.75	0.38	CR 16 U-Turn		0	5	3	3	0	5	3	3	0	0	0	0	0	7	5	5
						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.89	0.88	0.81	0.87	CR 16 WB		597	807	455	590	597	807	455	590	115	56	208	56	924	1149	824	855
					Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.72	0.79	0.82	0.86	EB	Thr	232	361	527	399	232	361	527	399	128	27	92	27	443	516	806	568
					Right	14	15	10	13	14	15	10	13	0	0	0	0	19	21	14	18
				WB	Left	0	5	0	6	0	5	0	6	29	12	128	12	29	19	128	21
0.73	0.95	0.82	0.93		Thr	125	313	124	136	125	313	124	136	26	23	104	23	196	447	272	208
																		1,611	2,159	2,049	1,675
INTERSECTION: Horseblock Road (CR 16) and Brookhaven Town Landfill																					
				NB	Left	30	49	14	96	32	53	15	106	0	0	0	0	44	72	21	144
0.86	0.75	0.52	0.89		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Right	25	62	17	108	27	67	18	119	0	0	0	0	37	91	25	162
				SB	Left	0	0	0	0	0	0	0	0	41	89	244	89	41	89	244	89
--	--	--	--		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					Right	0	0	0	0	0	0	0	0	23	48	132	48	23	48	132	48
				EB	Left	0	0	0	0	0	0	0	0	137	22	35	22	137	22	35	22
0.90	0.92	0.82	0.96		Thr	290	414	686	352	311	444	736	388	69	28	200	28	491	630	1197	554
					Right	35	56	2	109	38	60	2	120	0	0	0	0	51	82	3	163
				WB	Left	30	51	2	76	32	55	2	84	0	0	0	0	44	75	3	114
0.95	0.91	0.92	0.93		Thr	547	416	390	408	587	446	418	450	299	34	107	34	1094	639	674	644
					Right	0	0	0	0	0	0	0	0	253	41	65	41	253	41	65	41
																		2,215	1,789	2,399	1,981
INTERSECTION: Patchogue-Yaphank Road (CR 101) and Horseblock Road (CR 16)																					
				NB	Left	20	22	29	31	20	22	29	31	0	0	0	0	28	30	40	42
0.84	0.96	0.88	0.89		Thr	362	317	554	337	362	317	554	337	147	139	136	139	638	569	887	596
					Right	98	66	41	47	98	66	41	47	0	0	0	0	133	90	56	64
				SB	Left	72	39	59	44	72	39	59	44	0	0	0	0	98	53	80	60
0.82	0.94	0.78	0.89		Thr	449	307	427	342	449	307	427	342	59	120	163	120	667	536	742	584
					Right	47	51	53	40	47	51	53	40	0	0	0	0	64	70	72	55
				EB	Left	54	28	14	53	54	28	14	53	0	0	0	0	74	38	19	72
0.85	0.93	0.86	0.87		Thr	400	348	448	395	400	348	448	395	126	26	72	26	668	498	679	561
					Right	9	66	70	24	9	66	70	24	0	0	0	0	13	90	95	33
				WB	Left	57	132	140	71	57	132	140	71	0	0	0	0	78	179	190	97
0.80	0.85	0.69	0.95		Thr	349	307	358	403	349	307	358	403	39	44	175	44	512	460	660	590
					Right	64	49	121	45	64	49	121	45	0	0	0	0	87	67	164	61
																		3,060	2,680	3,684	2,815

Dir.	Mvmt.	Area A Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Area B Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT
INTERSECTION: Yaphank Avenue (CR 21) and LIE North Service Road													
NB	Left		55%	12	9	7	9		25%	32	29	260	29
	Thr			---	---	---	---			---	---	---	---
SB	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
WB	Left	15%		1	3	3	3	30%		283	40	68	40
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and LIE South Service Road													
NB	Thr		55%	12	9	7	9		25%	32	29	260	29
	Right		15%	3	2	2	2		30%	38	34	312	34
SB	Left			---	---	---	---			---	---	---	---
	Thr	15%		1	3	3	3	30%		283	40	68	40
EB	Left			---	---	---	---			---	---	---	---
	Thr	30%		2	5	6	5			---	---	---	---
	Right	25%		2	5	5	5	25%		236	33	57	33
INTERSECTION: Yaphank Avenue (CR 21) and SCDPW Driveway													
NB	Left			---	---	---	---			---	---	---	---
	Thr	30%		2	5	6	5		55%	70	63	573	63
	Right			---	---	---	---			---	---	---	---
SB	Left			---	---	---	---			---	---	---	---
	Thr		30%	7	5	4	5	55%		518	73	125	73
	Right			---	---	---	---			---	---	---	---
EB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
WB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and Gerard Road													
NB	Thr	30%		2	5	6	5		55%	70	63	573	63
	Right			---	---	---	---			---	---	---	---
SB	Left			---	---	---	---			---	---	---	---
	Thr		30%	7	5	4	5	55%		518	73	125	73
WB	Left			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
INTERSECTION: Yaphank Avenue (CR 21) and Glover Drive													
NB	Left			---	---	---	---	45%		424	59	103	59
	Thr	30%		2	5	6	5			---	---	---	---
SB	Thr		30%	7	5	4	5			---	---	---	---
	Right			---	---	---	---	55%		518	73	125	73
EB	Left			---	---	---	---		55%	70	63	573	63
	Right			---	---	---	---		45%	57	51	468	51
INTERSECTION: Yaphank Avenue (CR 21) and Horseblock Road (CR 16)													
NB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
SB	Left		15%	3	2	2	2		35%	44	40	364	40
	Thr		15%	3	2	2	2		10%	13	11	104	11
	Right			---	---	---	---			---	---	---	---
EB	Left			---	---	---	---	10%		94	13	23	13
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
WB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right	30%		2	5	6	5	35%		330	46	80	46
INTERSECTION: Yaphank Avenue/Horseblock Road and Sunrise Highway Exit 57													
NB	Left			---	---	---	---			---	---	---	---
NB	Thr	15%		1	3	3	3			---	---	---	---
	Right			---	---	---	---			---	---	---	---
SB	Left			---	---	---	---			---	---	---	---
	Thr		15%	3	2	2	2		35%	44	40	364	40
	Right			---	---	---	---			---	---	---	---
WB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right	15%		1	3	3	3	35%		330	46	80	46
INTERSECTION: Horseblock Road (CR 16) and Woodside Avenue (CR 99)													
				---	---	---	---			---	---	---	---
CR 16 U-Turn				---	---	---	---			---	---	---	---
				---	---	---	---			---	---	---	---
CR 16 WB				---	---	---	---			---	---	---	---
	Left			---	---	---	---			---	---	---	---
EB	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
WB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
INTERSECTION: Horseblock Road (CR 16) and Brookhaven Town Landfill													
NB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
SB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
EB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
WB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
INTERSECTION: Patchogue-Yaphank Road (CR 101) and Horseblock Road (CR 16)													
NB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
SB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
EB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---
WB	Left			---	---	---	---			---	---	---	---
	Thr			---	---	---	---			---	---	---	---
	Right			---	---	---	---			---	---	---	---

Dir.	Mvmt.	Area C Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Area D Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Total Site Generated Traffic AM	MID	PM	SAT	2025 As-of-right Buildout AM	MID	PM	SAT
INTERSECTION: Yaphank Avenue (CR 21) and LIE North Service Road																					
NB	Left		25%	10	8	78	8			---	---	---	---	54	45	345	45	472	381	747	256
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	151	271	319	215
SB	Thr			---	---	---	---			---	---	---	---	0	0	0	0	275	199	227	150
	Right			---	---	---	---			---	---	---	---	0	0	0	0	114	56	44	67
WB	Left	30%		85	11	19	11	30%		285	36	64	36	654	89	155	89	1137	255	423	224
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	2	0	7	6
	Right			---	---	---	---			---	---	---	---	0	0	0	0	67	51	91	45
INTERSECTION: Yaphank Avenue (CR 21) and LIE South Service Road																					
NB	Thr		25%	10	8	78	8			---	---	---	---	54	45	345	45	605	587	1011	395
	Right		30%	12	9	94	9		30%	39	30	314	30	92	76	722	76	460	288	1184	248
SB	Left			---	---	---	---			---	---	---	---	0	0	0	0	59	73	91	62
	Thr	30%		85	11	19	11	30%		285	36	64	36	654	89	155	89	1373	409	643	305
EB	Left			---	---	---	---			---	---	---	---	0	0	0	0	27	58	86	72
	Thr			---	---	---	---			---	---	---	---	2	5	6	5	3	12	9	15
	Right	25%		71	9	16	9	5%		47	6	11	6	356	52	89	52	827	312	637	283
INTERSECTION: Yaphank Avenue (CR 21) and SCDPW Driveway																					
NB	Left			---	---	---	---			---	---	---	---	0	0	0	0	36	15	14	6
	Thr		55%	21	17	172	17		30%	39	30	314	30	132	115	1064	115	1118	625	2044	602
	Right			---	---	---	---			---	---	---	---	0	0	0	0	83	32	18	0
SB	Left			---	---	---	---			---	---	---	---	0	0	0	0	113	45	13	0
	Thr	55%		156	19	35	19	35%		332	42	75	42	1013	138	239	138	1989	685	1336	555
	Right			---	---	---	---			---	---	---	---	0	0	0	0	30	22	7	5
EB	Left			---	---	---	---			---	---	---	---	0	0	0	0	2	37	18	7
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
	Right			---	---	---	---			---	---	---	---	0	0	0	0	13	42	28	7
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	15	19	22	0
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	0	2	0	0
	Right			---	---	---	---			---	---	---	---	0	0	0	0	25	47	47	3
INTERSECTION: Yaphank Avenue (CR 21) and Gerard Road																					
NB	Thr		55%	21	17	172	17		30%	39	30	314	30	132	115	1064	115	1062	664	1959	499
	Right			---	---	---	---			---	---	---	---	0	0	0	0	15	13	14	29
SB	Left			---	---	---	---			---	---	---	---	0	0	0	0	33	45	99	84
	Thr	55%		156	19	35	19	35%		332	42	75	42	1013	138	239	138	1718	532	988	486
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	22	13	11	14
	Right			---	---	---	---			---	---	---	---	0	0	0	0	112	52	34	75
INTERSECTION: Yaphank Avenue (CR 21) and Glover Drive																					
NB	Left	45%		128	16	29	16			---	---	---	---	552	75	131	75	681	152	183	112
	Thr			---	---	---	---		30%	39	30	314	30	41	36	320	36	930	489	1057	386
SB	Thr			---	---	---	---	35%		332	42	75	42	339	46	79	46	1000	373	815	361
	Right	55%		156	19	35	19			---	---	---	---	674	92	161	92	740	152	185	125
EB	Left		55%	21	17	172	17			---	---	---	---	91	79	744	79	148	194	917	151
	Right		45%	18	14	140	14			---	---	---	---	75	65	609	65	108	143	691	129
INTERSECTION: Yaphank Avenue (CR 21) and Horseblock Road (CR 16)																					
NB	Left			---	---	---	---			---	---	---	---	0	0	0	0	0	3	2	5
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	3	3	3	0
	Right			---	---	---	---			---	---	---	---	0	0	0	0	5	2	6	5
SB	Left		35%	14	11	109	11			---	---	---	---	61	53	475	53	255	273	1042	239
	Thr		10%	4	3	31	3			---	---	---	---	20	17	137	17	125	117	442	95
	Right			---	---	---	---	35%		332	42	75	42	332	42	75	42	684	173	296	137
EB	Left	10%		28	4	6	4		30%	39	30	314	30	162	47	343	47	292	180	586	159
	Thr			---	---	---	---		35%	46	35	366	35	46	35	366	35	443	591	1672	829
	Right			---	---	---	---			---	---	---	---	0	0	0	0	32	36	44	48
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	41	79	29	41
	Thr			---	---	---	---	40%		380	48	86	48	380	48	86	48	1421	1031	677	688
	Right	35%		99	12	22	12			---	---	---	---	431	64	109	64	1341	420	566	345
INTERSECTION: Yaphank Avenue/Horseblock Road and Sunrise Highway Exit 57																					
NB	Left			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
NB	Thr			---	---	---	---			---	---	---	---	1	3	3	3	1085	533	226	498
	Right			---	---	---	---			---	---	---	---	0	0	0	0	65	70	547	172
SB	Left			---	---	---	---			---	---	---	---	0	0	0	0	67	139	279	231
	Thr		35%	14	11	109	11		35%	46	35	366	35	107	88	841	88	627	735	2330	785
	Right			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	44	143	69	58
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
	Right	35%		99	12	22	12	40%		380	48	86	48	810	109	191	109	1740	970	666	556
INTERSECTION: Horseblock Road (CR 16) and Woodside Avenue (CR 99)																					
				---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
CR 16 U-Turn				---	---	---	---			---	---	---	---	0	0	0	0	0	7	5	5
				---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
CR 16 WB				---	---	---	---		25%	33	25	262	25	33	25	262	25	957	1175	1086	881
	Left			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
EB	Thr			---	---	---	---	20%		190	24	43	24	190	24	43	24	633	540	849	592
	Right			---	---	---	---			---	---	---	---	0	0	0	0	19	21	14	18
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	29	19	128	21
	Thr			---	---	---	---		5%	7	5	52	5	7	5	52	5	203	453	325	214
INTERSECTION: Horseblock Road (CR 16) and Brookhaven Town Landfill																					
NB	Left			---	---	---	---			---	---	---	---	0	0	0	0	44	72	21	144
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
	Right			---	---	---	---			---	---	---	---	0	0	0	0	37	91	25	162
SB	Left			---	---	---	---		65%	85	66	680	66	85	66	680	66	126	155	924	155
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
	Right			---	---	---	---		35%	46	35	366	35	46	35	366	35	69	84	499	84
EB	Left			---	---	---	---	30%		285	36	64	36	285	36	64	36	422	58	100	58
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	491	630	1197	554
	Right			---	---	---	---			---	---	---	---	0	0	0	0	51	82	3	163
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	44	75	3	114
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	1094	639	674	644
	Right			---	---	---	---	70%		664	83	150	83	664	83	150	83	918	125	215	125
INTERSECTION: Patchogue-Yaphank Road (CR 101) and Horseblock Road (CR 16)																					
NB	Left			---	---	---	---			---	---	---	---	0	0	0	0	28	30	40	42
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	638	569	887	596
	Right			---	---	---	---			---	---	---	---	0	0	0	0	133	90	56	64
SB	Left			---	---	---	---			---	---	---	---	0	0	0	0	98	53	80	60
	Thr			---	---	---	---			---	---	---	---	0	0	0	0	667	536	742	584
	Right			---	---	---	---			---	---	---	---	0	0	0	0	64	70	72	55
EB	Left			---	---	---	---			---	---	---	---	0	0	0	0	74	38	19	72
	Thr			---	---	---	---	20%		190	24	43	24	190	24	43	24	858	522	722	585
	Right			---	---	---	---			---	---	---	---	0	0	0	0	13	90	95	33
WB	Left			---	---	---	---			---	---	---	---	0	0	0	0	78	179	190	97
	Thr			---	---	---	---		25%	33	25	262	25	33	25	262	25	545	486	922	616
	Right			---	---	---	---			---	---	---	---	0	0	0	0	87	67	164	61

Trip Distribution & Assignment Spreadsheet

Growth Factor: 2.04% for 15 years, to 2025
15-year growth: 1.354

Passby Percentages
0% Weekday
0% Weekend

Seasonal Factors:	Weekday	Saturday
November	1.03	0.858
June	1.105	0.946
Monthly Adjustment	*1.073*	*1.103*

Existing volumes X 1.354 to show 15 years of ambient growth plus trips generated by other planned projects:

	As-of-right Buildout-Area A				As-of-right Buildout-Area B				As-of-right Buildout-Area C				As-of-right Buildout-Area D			
	AM	MID	PM	SAT	AM	MID	PM	SAT	AM	MID	PM	SAT	AM	MID	PM	SAT
Enter	7	18	21	18	942	132	228	132	284	35	64	35	949	119	214	119
Exit	22	16	12	16	127	114	1041	114	39	30	312	30	130	101	1046	101
Total	29	34	33	34	1069	246	1269	246	323	65	376	65	1079	220	1260	220

AM PHF	MID PHF	PM PHF	SAT PHF	Dir.	Mvmt	2010 Existing Volumes AM	MID	PM	SAT	Seasonally Adjust to JUNE 2010 AM	MID	PM	SAT	Total Other Project Trips AM	MID	PM	SAT	2025 No Build Volumes AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Distribution %Enter	%Exit	Generated Traffic AM	MID	PM	SAT	Total Site Generated Traffic AM	MID	PM	SAT	2025 As-of-right Buildout AM	MID	PM	SAT
INTERSECTION: Bellport Road and Horseblock Road (CR 16)																																																						
				NB	Left	179	255	181	227	179	255	181	227	0	0	0	0	243	346	246	308			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	243	346	246	308
0.83	0.78	0.91	0.92		Thr	82	116	149	124	82	116	149	124	3	2	2	2	115	160	204	170			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	115	160	204	170
					Right	2	12	12	9	2	12	12	9	0	0	0	0	3	17	17	13			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	3	17	17	13
				SB	Left	47	29	26	23	47	29	26	23	25	15	80	15	89	55	116	47			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	89	55	116	47
0.78	0.78	0.78	0.86		Thr	128	83	118	82	128	83	118	82	14	8	40	8	188	121	200	120			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	188	121	200	120
					Right	18	16	18	36	18	16	18	36	0	0	0	0	25	22	25	49			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	25	22	25	49
				EB	Left	10	13	39	20	10	13	39	20	0	0	0	0	14	18	53	28			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	14	18	53	28
0.83	0.89	0.93	0.89		Thr	346	412	500	428	346	412	500	428	113	18	29	18	582	576	706	598			---	---	---	---			---	---	---	---			---	---	---	---	20%		190	24	43	24	190	24	43	24	772	600	749	622
					Right	144	219	283	290	144	219	283	290	0	0	0	0	195	297	384	393			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	195	297	384	393
				WB	Left	1	8	5	4	1	8	5	4	0	0	0	0	2	11	7	6			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	2	11	7	6
0.91	0.84	0.81	0.92		Thr	364	440	353	453	364	440	353	453	33	42	173	42	526	638	651	656			---	---	---	---			---	---	---	---			---	---	---	---		25%	33	25	262	25	33	25	262	25	559	664	913	682
					Right	32	21	88	38	32	21	88	38	7	3	3	3	51	32	123	55			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	51	32	123	55
																		2,033	2,293	2,732	2,443																																
INTERSECTION: Horseblock Road (CR 16) and LIE North Service Road																																																						
				NB	Left	354	338	375	344	354	338	375	344	33	42	173	42	513	500	681	508			---	---	---	---			---	---	---	---			---	---	---	---		25%	33	25	262	25	33	25	262	25	546	526	943	534
0.91	0.96	0.91	0.95		Thr	363	500	555	570	363	500	555	570	0	0	0	0	492	677	752	772			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	492	677	752	772
0.79	0.89	0.94	0.96	SB	Thr	456	619	770	649	456	619	770	649	0	0	0	0	618	839	1043	879			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	618	839	1043	879
					Right	57	29	41	51	57	29	41	51	0	0	0	0	78	40	56	70			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	78	40	56	70
				WB	Left	195	175	225	78	195	175	225	78	0	0	0	0	264	237	305	106			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	264	237	305	106
0.86	0.87	0.91	0.90		Thr	276	177	205	248	276	177	205	248	30	17	92	17	404	257	370	353			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	404	257	370	353
					Right	91	87	99	198	91	87	99	198	0	0	0	0	124	118	135	269			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	124	118	135	269
																		2,493	2,668	3,342	2,957																																
INTERSECTION: Horseblock Road (CR 16) and LIE South Service Road																																																						
0.94	0.89	0.98	0.94	NB	Thr	616	657	675	792	616	657	675	792	33	42	173	42	867	932	1087	1115			---	---	---	---			---	---	---	---			---	---	---	---		25%	33	25	262	25	33	25	262	25	900	958	1349	1141
					Right	25	31	22	29	25	31	22	29	0	0	0	0	34	42	30	40			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	34	42	30	40
				SB	Left	198	227	346	210	198	227	346	210	0	0	0	0	269	308	469	285			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	269	308	469	285
0.85	0.92	0.93	0.88		Thr	333	489	647	483	333	489	647	483	0	0	0	0	451	663	876	654			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	451	663	876	654
				EB	Left	73	101	202	98	73	101	202	98	0	0	0	0	99	137	274	133			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	99	137	274	133
0.82	0.93	0.80	0.94		Thr	53	73	112	68	53	73	112	68	0	0	0	0	72	99	152	93			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	72	99	152	93
					Right	405	326	430	310	405	326	430	310	113	18	29	18	662	460	612	438			---	---	---	---			---	---	---	---			---	---	---	---	20%		190	24	43	24	190	24	43	24	852	484	655	462
																		2,454	2,641	3,500	2,758																																
INTERSECTION: Yaphank Avenue (CR 21) and Parcel A Main Driveway																																																						
				NB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
0.97	0.90	0.87	0.87		Thr	623	366	568	295	623	366	568	295	167	97	273	97	1011	593	1042	497		55%	70	63	573	63		55%	21	17	172	17		30%	39	30	314	30	130	110	1058	110	1142	703	2100	607
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30%		2	5	6	5			---	---	---	---			---	---	---	---			---	---	---	---	2	5	6	5	3	6	7	6
				SB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40%		3	7	8	7			---	---	---	---			---	---	---	---			---	---	---	---	3	7	8	7	3	8	9	8
0.93	0.92	0.97	0.96		Thr	547	391	685	249	547	391	685	249	376	82	187	82	1117	612	1115	420		55%	518	73	125	73	55%		156	19	35	19	35%		332	42	75	42	1006	134	236	134	2124	746	1351	554
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
				WB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		30%	7	5	4	5			---	---	---	---			---	---	---	---			---	---	---	---	7	5	4	5	7	5	4	5
--	--	--	--		Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		70%	15	11	8	11			---	---	---	---			---	---	---	---			---	---	---	---	15	11	8	11	16	12	9	12
						1,170	757	1,253	544	1,170	757	1,253	544					2,128	1,205	2,157	917																									1,164	272	1,320	272	3,295	1,480	3,480	1,192
INTERSECTION: Parcel A Secondary Driveway and LIE South Service Road																																																						
--	--	--	--	NB	Thr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
				EB	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			---	---	---	---			---	---	---	---			---	---	---	---			---	---	---	---	0	0	0	0	0	0	0	0
0.93	0.79	0.90	0.77		Thr	280	171	259	141	280	171	259	141	46	58	202	58	426	290	553	249			---	---	---	---			---	---	---	---			---	---	---	---		30%	39	30	314	30	39	30	314	30	465	321	867	280
					Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30%		2	5	6	5			---	---	---	---			---	---	---	---			---	---	---	---	2	5	6	5	3	6	7	6
																		426	290	553	249																																

APPENDIX O: AS-OF RIGHT BUILD LEVEL OF SERVICE/CAPACITY WORKSHEETS

Intersections

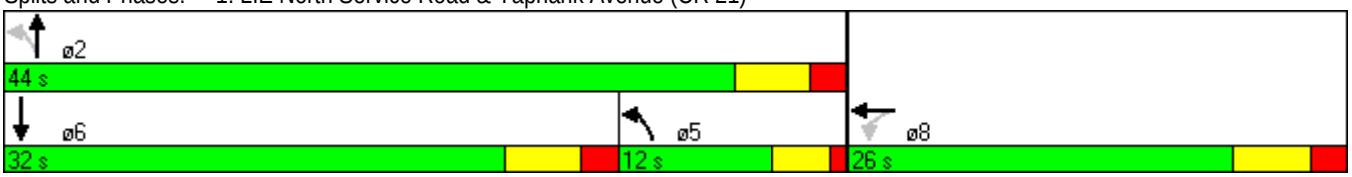
1. Yaphank Avenue (CR 21) at LIE North Service Road
2. Yaphank Avenue (CR 21) at LIE South Service Road
3. Yaphank Avenue (CR 21) at SCDPW Driveway
4. Yaphank Avenue (CR 21) at Gerard Road
5. Yaphank Avenue (CR 21) at Glover Drive
6. Yaphank Avenue (CR 21) at Horseblock Road (CR 16)
7. Yaphank Avenue/Horseblock Road at Sunrise Highway Exit 57
8. Horseblock Road (CR 16) at Woodside Avenue (CR 99)
9. Horseblock Road (CR 16) at the Brookhaven Town Landfill
10. Horseblock Road (CR 16) at Patchogue-Yaphank Road (CR 101)
11. Horseblock Road (CR 16) at Bellport Road
12. Horseblock Road (CR 16) at LIE North Service Road
13. Horseblock Road (CR 16) at LIE South Service Road
14. Yaphank Avenue (CR 21) at Area A Main Driveway
15. LIE North Service Road at Area A Secondary Driveway

AS-OF RIGHT BUILD AM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	2	472	151	275
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	3.0	12.0	12.0
Minimum Split (s)	22.0	7.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	22.0	40.0	40.0	28.0
Actuated g/C Ratio	0.31	0.57	0.57	0.40
v/c Ratio	2.53dl	0.98	0.19	0.30
Control Delay	220.1	44.8	1.5	11.4
Queue Delay	9.8	0.0	0.0	0.1
Total Delay	229.9	44.8	1.5	11.5
LOS	F	D	A	B
Approach Delay	229.9		34.3	11.5
Approach LOS	F		C	B

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 136.0	Intersection LOS: F
Intersection Capacity Utilization 132.1%	ICU Level of Service H
Analysis Period (min) 15	
dl Defacto Left Lane. Recode with 1 though lane as a left lane.	

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

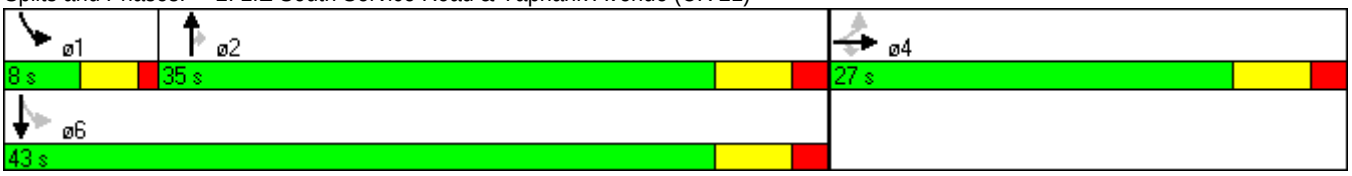


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	3	827	605	460	59	1373
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	3.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	7.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.0	23.0	32.6	32.6	39.0	39.0
Actuated g/C Ratio	0.33	0.33	0.47	0.47	0.56	0.56
v/c Ratio	0.06	1.84	0.78	0.52	0.30	0.84
Control Delay	16.6	405.2	25.3	3.6	2.5	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	2.9
Total Delay	16.6	405.2	25.3	3.6	2.5	10.1
LOS	B	F	C	A	A	B
Approach Delay	391.8		15.9			9.8
Approach LOS	F		B			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.84
Intersection Signal Delay: 110.4 Intersection LOS: F
Intersection Capacity Utilization 132.1% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	0	13	15	0	25	36	1118	83	113	1989	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.97	0.97	0.97	0.93	0.93	0.93
Hourly flow rate (vph)	2	0	15	18	0	29	37	1153	86	122	2139	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.64	0.64	0.64	0.64	0.64		0.64					
vC, conflicting volume	3638	3694	1069	2554	3641	1153	2171			1238		
vC1, stage 1 conf vol	2382	2382		1227	1227							
vC2, stage 2 conf vol	1256	1312		1328	2414							
vCu, unblocked vol	3997	4085	0	2303	4002	1153	1704			1238		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	67	100	98	86	100	85	84			78		
cM capacity (veh/h)	7	38	694	129	9	191	236			558		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	18	47	37	1153	86	122	1069	1069	32
Volume Left	2	18	37	0	0	122	0	0	0
Volume Right	15	29	0	0	86	0	0	0	32
cSH	51	162	236	1700	1700	558	1700	1700	1700
Volume to Capacity	0.35	0.29	0.16	0.68	0.05	0.22	0.63	0.63	0.02
Queue Length 95th (ft)	31	29	14	0	0	21	0	0	0
Control Delay (s)	109.9	36.1	23.1	0.0	0.0	13.2	0.0	0.0	0.0
Lane LOS	F	E	C			B			
Approach Delay (s)	109.9	36.1	0.7			0.7			
Approach LOS	F	E							

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	112	1062	15	33	1718
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.88	0.88	0.85	0.85
Hourly flow rate (vph)	26	132	1207	17	39	2021
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3306	1207			1224	
vC1, stage 1 conf vol	1207					
vC2, stage 2 conf vol	2099					
vCu, unblocked vol	3306	1207			1224	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	70	41			93	
cM capacity (veh/h)	87	223			570	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	158	1207	17	39	2021
Volume Left	26	0	0	39	0
Volume Right	132	0	17	0	0
cSH	178	1700	1700	570	1700
Volume to Capacity	0.89	0.71	0.01	0.07	1.19
Queue Length 95th (ft)	163	0	0	5	0
Control Delay (s)	93.2	0.0	0.0	11.8	0.0
Lane LOS	F			B	
Approach Delay (s)	93.2	0.0		0.2	
Approach LOS	F				

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	105.2%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	148	108	681	930	1000	740
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.88	0.88	0.89	0.89
Hourly flow rate (vph)	172	126	774	1057	1124	831
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3728	1124	1124			
vC1, stage 1 conf vol	1124					
vC2, stage 2 conf vol	2605					
vCu, unblocked vol	3728	1124	1124			
tC, single (s)	6.6	6.4	4.2			
tC, 2 stage (s)	5.6					
tF (s)	3.7	3.5	2.3			
p0 queue free %	0	46	0			
cM capacity (veh/h)	0	232	586			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	172	126	774	1057	1124	831
Volume Left	172	0	774	0	0	0
Volume Right	0	126	0	0	0	831
cSH	0	232	586	1700	1700	1700
Volume to Capacity	Err	0.54	1.32	0.62	0.66	0.49
Queue Length 95th (ft)	Err	73	810	0	0	0
Control Delay (s)	Err	37.4	177.1	0.0	0.0	0.0
Lane LOS	F	E	F			
Approach Delay (s)	Err		74.8		0.0	
Approach LOS	F					

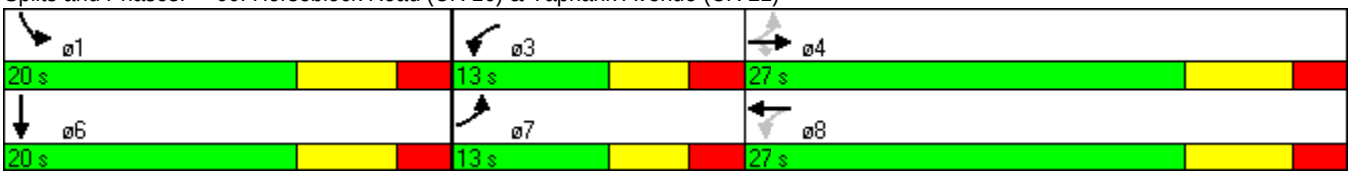
Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	108.6%	ICU Level of Service	G
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	292	443	32	41	1421	255	125
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	1.0	1.0	3.0	1.0	4.0	8.0
Minimum Split (s)	10.0	8.3	8.3	10.0	8.3	11.0	15.0
Total Split (s)	13.0	27.0	27.0	13.0	27.0	20.0	20.0
Total Split (%)	21.7%	45.0%	45.0%	21.7%	45.0%	33.3%	33.3%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	35.0	31.4	31.4	31.2	23.0	15.4	15.4
Actuated g/C Ratio	0.58	0.52	0.52	0.52	0.38	0.26	0.26
v/c Ratio	0.87	0.28	0.04	0.08	1.10	0.71	0.32
Control Delay	39.0	10.2	4.9	5.5	78.9	30.8	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	10.2	4.9	5.5	78.9	30.8	20.0
LOS	D	B	A	A	E	C	B
Approach Delay		20.9			76.8		27.2
Approach LOS		C			E		C

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 48 (80%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 52.1 Intersection LOS: D
Intersection Capacity Utilization 79.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	767	1421	0	0	684
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.95	0.95	0.85	0.85
Hourly flow rate (vph)	0	862	1496	0	0	805
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.62				0.62	0.62
vC, conflicting volume	1496				1711	748
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	581				927	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	615				166	674

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	215	215	215	215	748	748	805
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	805
cSH	1700	1700	1700	1700	1700	1700	674
Volume to Capacity	0.13	0.13	0.13	0.13	0.44	0.44	1.19
Queue Length 95th (ft)	0	0	0	0	0	0	684
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	122.9
Lane LOS							F
Approach Delay (s)	0.0				0.0		122.9
Approach LOS							F

Intersection Summary			
Average Delay	31.3		
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	44	1740	1085	67	627
Turn Type		Prot		pm+pt	
Protected Phases	8	8	2	1	6
Permitted Phases				6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	23.3	8.0	23.3
Total Split (s)	26.0	26.0	26.0	8.0	34.0
Total Split (%)	43.3%	43.3%	43.3%	13.3%	56.7%
Yellow Time (s)	3.5	3.5	4.8	3.5	4.8
All-Red Time (s)	0.5	0.5	2.5	0.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	7.3	4.0	7.3
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.0	22.0	21.9	30.0	26.7
Actuated g/C Ratio	0.37	0.37	0.36	0.50	0.44
v/c Ratio	0.08	2.82	1.00	0.31	0.47
Control Delay	12.9	838.5	50.0	11.6	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	838.5	50.0	11.6	13.1
LOS	B	F	D	B	B
Approach Delay	818.3		50.0		12.9
Approach LOS	F		D		B

Intersection Summary

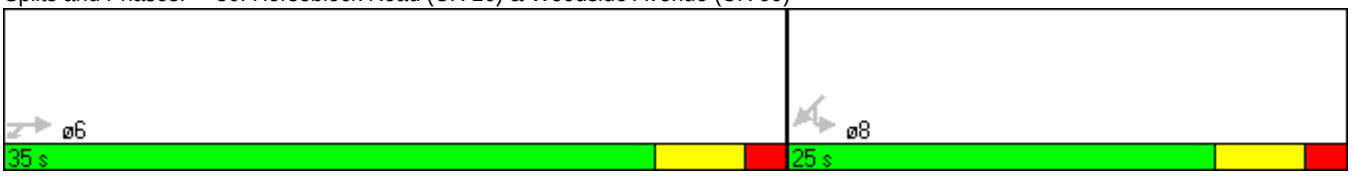
Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.82
Intersection Signal Delay: 424.5 Intersection LOS: F
Intersection Capacity Utilization 149.2% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)

Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	633	19	203
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	35.0	35.0	25.0
Total Split (%)	58.3%	58.3%	41.7%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	40.5	40.5	11.5
Actuated g/C Ratio	0.68	0.68	0.19
v/c Ratio	0.30	0.02	0.39
Control Delay	4.6	2.0	20.1
Queue Delay	0.0	0.0	0.0
Total Delay	4.6	2.0	20.1
LOS	A	A	C
Approach Delay	4.6		20.1
Approach LOS	A		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 30.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

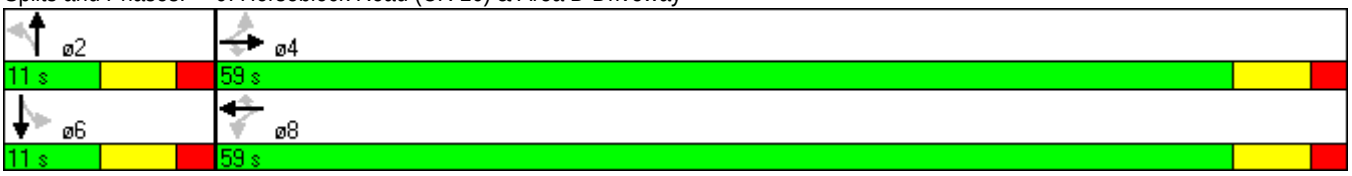


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	422	491	51	44	1094	918	44	0	126	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	10.0	7.0	7.0
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	11.0	11.0	11.0	11.0
Total Split (%)	84.3%	84.3%	84.3%	84.3%	84.3%	84.3%	15.7%	15.7%	15.7%	15.7%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	55.0	55.0	55.0	55.0	55.0	55.0	7.0	7.0	7.0	7.0
Actuated g/C Ratio	0.79	0.79	0.79	0.79	0.79	0.79	0.10	0.10	0.10	0.10
v/c Ratio	2.05	0.20	0.05	0.07	0.79	0.68	0.39	0.08	1.01	0.25
Control Delay	504.1	2.1	0.6	2.0	9.3	2.9	38.6	0.3	116.6	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	504.1	2.1	0.6	2.0	9.3	2.9	38.6	0.3	116.6	2.0
LOS	F	A	A	A	A	A	D	A	F	A
Approach Delay		219.0			6.2			21.1		76.0
Approach LOS		F			A			C		E

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.05
Intersection Signal Delay: 74.2 Intersection LOS: E
Intersection Capacity Utilization 104.6% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Driveway

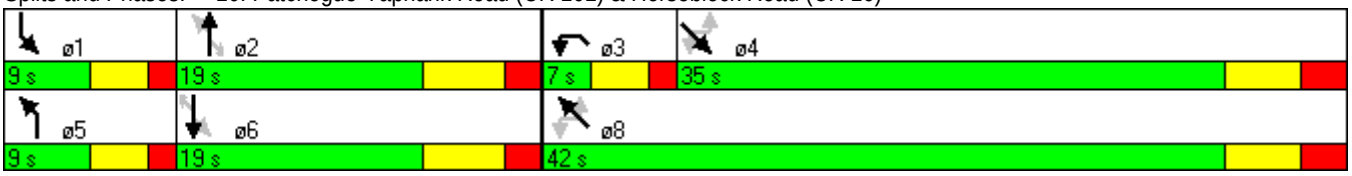


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	28	638	133	98	667	64	74	858	13	78	545	87
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	16.2	16.2	8.5	16.2	16.2	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	19.0	19.0	9.0	19.0	19.0	35.0	35.0	35.0	7.0	42.0	42.0
Total Split (%)	12.9%	27.1%	27.1%	12.9%	27.1%	27.1%	50.0%	50.0%	50.0%	10.0%	60.0%	60.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	20.8	16.8	16.8	22.4	20.4	20.4	32.4	32.4	32.4	38.0	38.0	38.0
Actuated g/C Ratio	0.30	0.24	0.24	0.32	0.29	0.29	0.46	0.46	0.46	0.54	0.54	0.54
v/c Ratio	0.15	0.92	0.33	0.52	0.78	0.15	0.40	1.35	0.02	0.55	0.70	0.12
Control Delay	17.3	46.6	6.7	26.3	32.6	7.4	9.3	180.8	2.0	22.6	16.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	46.6	6.7	26.3	32.6	7.4	9.3	180.8	2.0	22.6	16.9	2.3
LOS	B	D	A	C	C	A	A	F	A	C	B	A
Approach Delay		39.0			29.9			164.9			15.7	
Approach LOS		D			C			F			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 67.9 Intersection LOS: E
Intersection Capacity Utilization 85.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

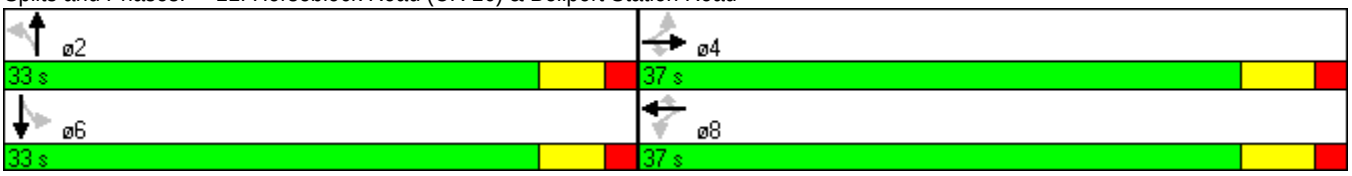


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	14	772	195	2	559	51	243	115	89	188
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	33.0	33.0	33.0	33.0
Total Split (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	47.1%	47.1%	47.1%	47.1%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)		34.1	34.1		34.1	34.1		27.9		27.9
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.40		0.40
v/c Ratio		1.14	0.30		1.04	0.08		0.92		0.53
Control Delay		99.7	6.5		72.2	13.6		49.1		18.7
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		99.7	6.5		72.2	13.6		49.1		18.7
LOS		F	A		E	B		D		B
Approach Delay		81.2			67.4			49.1		18.7
Approach LOS		F			E			D		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 63.9 Intersection LOS: E
Intersection Capacity Utilization 97.9% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

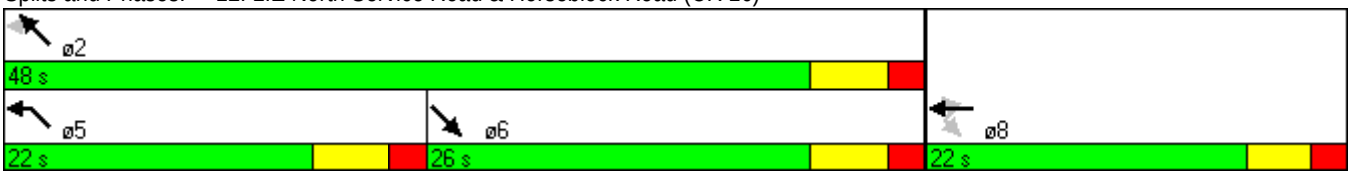


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	404	124	618	546	492
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	20.0	4.0	20.0
Minimum Split (s)	21.3	21.3	26.0	10.0	26.0
Total Split (s)	22.0	22.0	26.0	22.0	48.0
Total Split (%)	31.4%	31.4%	37.1%	31.4%	68.6%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.3	-1.3	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.7	17.7	22.0	44.3	44.3
Actuated g/C Ratio	0.25	0.25	0.31	0.63	0.63
v/c Ratio	0.83	0.29	0.69	1.10	0.48
Control Delay	33.9	5.9	24.0	79.8	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	5.9	24.0	79.8	14.1
LOS	C	A	C	E	B
Approach Delay	29.5		24.0		48.7
Approach LOS	C		C		D

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.10
Intersection Signal Delay: 35.5 Intersection LOS: D
Intersection Capacity Utilization 78.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

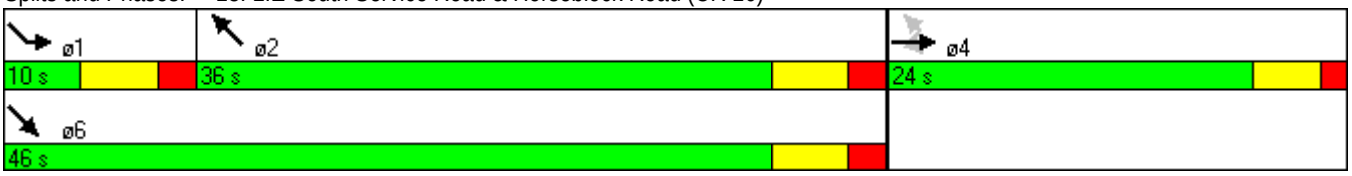


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	99	72	852	269	451	900
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.0	20.0	20.0	6.0	42.0	32.0
Actuated g/C Ratio	0.29	0.29	0.29	0.09	0.60	0.46
v/c Ratio	0.20	0.15	1.50	1.11	0.26	1.13
Control Delay	20.2	19.7	249.5	114.4	5.7	91.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	19.7	249.5	114.4	5.7	91.8
LOS	C	B	F	F	A	F
Approach Delay		211.1			46.3	91.8
Approach LOS		F			D	F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.50
Intersection Signal Delay: 126.3 Intersection LOS: F
Intersection Capacity Utilization 78.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	7	16	1142	3	3	2124
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	17	1241	3	3	2309
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked	0.61					
vC, conflicting volume	2402	1241			1245	
vC1, stage 1 conf vol	1241					
vC2, stage 2 conf vol	1161					
vCu, unblocked vol	2019	1241			1245	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	90			99	
cM capacity (veh/h)	214	166			555	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	25	1241	3	3	1154	1154
Volume Left	8	0	0	3	0	0
Volume Right	17	0	3	0	0	0
cSH	178	1700	1700	555	1700	1700
Volume to Capacity	0.14	0.73	0.00	0.01	0.68	0.68
Queue Length 95th (ft)	12	0	0	0	0	0
Control Delay (s)	28.4	0.0	0.0	11.5	0.0	0.0
Lane LOS	D			B		
Approach Delay (s)	28.4	0.0		0.0		
Approach LOS	D					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	465	3	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	505	3	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	419					
pX, platoon unblocked						
vC, conflicting volume			509		505	505
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			509		505	505
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1056		527	567

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	505	3	0
Volume Left	0	0	0
Volume Right	0	3	0
cSH	1700	1700	1700
Volume to Capacity	0.30	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0		0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	27.8%	ICU Level of Service	A
Analysis Period (min)	15		

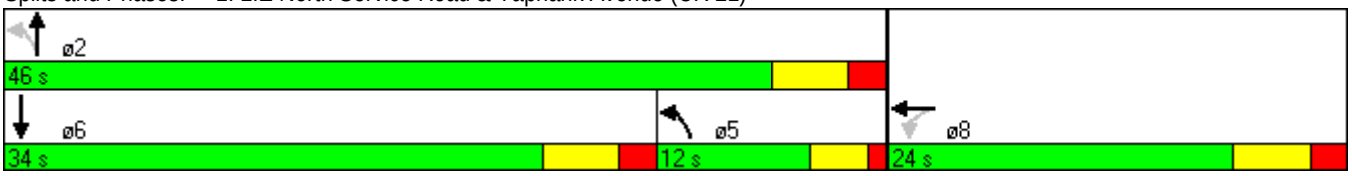
AS-OF RIGHT BUILD MIDDAY PEAK HOUR LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	0	381	271	199
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	15.2	46.8	46.8	34.8
Actuated g/C Ratio	0.22	0.67	0.67	0.50
v/c Ratio	0.55	0.59	0.29	0.16
Control Delay	24.9	8.1	2.0	8.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.9	8.1	2.0	8.3
LOS	C	A	A	A
Approach Delay	24.9		5.6	8.3
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 10.9 Intersection LOS: B
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

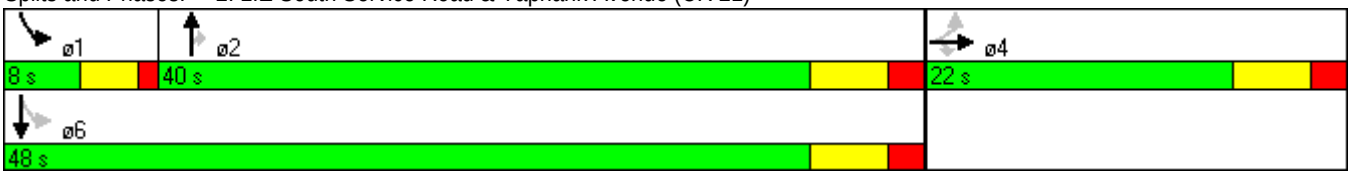


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	12	312	587	288	73	409
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.4	11.4	42.7	42.7	50.6	50.6
Actuated g/C Ratio	0.16	0.16	0.61	0.61	0.72	0.72
v/c Ratio	0.25	0.62	0.57	0.30	0.16	0.17
Control Delay	26.4	8.9	12.4	2.1	2.1	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	8.9	12.4	2.1	2.1	1.4
LOS	C	A	B	A	A	A
Approach Delay	12.1		9.0			1.5
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 7.6 Intersection LOS: A
Intersection Capacity Utilization 50.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	0	42	19	2	47	15	625	32	45	685	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.88	0.88	0.88	0.92	0.92	0.92
Hourly flow rate (vph)	44	0	49	22	2	55	17	710	36	49	745	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1643	1623	372	1264	1611	710	768			747		
vC1, stage 1 conf vol	842	842		744	744							
vC2, stage 2 conf vol	801	781		520	866							
vCu, unblocked vol	1643	1623	372	1264	1611	710	768			747		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	100	92	92	99	85	98			94		
cM capacity (veh/h)	189	259	625	290	267	376	841			857		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	93	80	17	710	36	49	372	372	24
Volume Left	44	22	17	0	0	49	0	0	0
Volume Right	49	55	0	0	36	0	0	0	24
cSH	301	343	841	1700	1700	857	1700	1700	1700
Volume to Capacity	0.31	0.23	0.02	0.42	0.02	0.06	0.22	0.22	0.01
Queue Length 95th (ft)	32	22	2	0	0	5	0	0	0
Control Delay (s)	22.2	18.6	9.4	0.0	0.0	9.5	0.0	0.0	0.0
Lane LOS	C	C	A			A			
Approach Delay (s)	22.2	18.6	0.2			0.6			
Approach LOS	C	C							

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	13	52	664	13	45	532
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.94	0.94	0.89	0.89
Hourly flow rate (vph)	15	61	706	14	51	598
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1405	706			720	
vC1, stage 1 conf vol	706					
vC2, stage 2 conf vol	699					
vCu, unblocked vol	1405	706			720	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	86			94	
cM capacity (veh/h)	357	436			881	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	76	706	14	51	598
Volume Left	15	0	0	51	0
Volume Right	61	0	14	0	0
cSH	417	1700	1700	881	1700
Volume to Capacity	0.18	0.42	0.01	0.06	0.35
Queue Length 95th (ft)	17	0	0	5	0
Control Delay (s)	15.6	0.0	0.0	9.3	0.0
Lane LOS	C			A	
Approach Delay (s)	15.6	0.0		0.7	
Approach LOS	C				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	194	143	152	489	373	152
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	228	168	179	575	439	179
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1372	439	439			
vC1, stage 1 conf vol	439					
vC2, stage 2 conf vol	933					
vCu, unblocked vol	1372	439	439			
tC, single (s)	6.5	6.3	4.3			
tC, 2 stage (s)	5.5					
tF (s)	3.6	3.4	2.3			
p0 queue free %	19	72	83			
cM capacity (veh/h)	281	593	1050			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	228	168	179	575	439	179
Volume Left	228	0	179	0	0	0
Volume Right	0	168	0	0	0	179
cSH	281	593	1050	1700	1700	1700
Volume to Capacity	0.81	0.28	0.17	0.34	0.26	0.11
Queue Length 95th (ft)	164	29	15	0	0	0
Control Delay (s)	56.2	13.4	9.1	0.0	0.0	0.0
Lane LOS	F	B	A			
Approach Delay (s)	38.1		2.2		0.0	
Approach LOS	E					

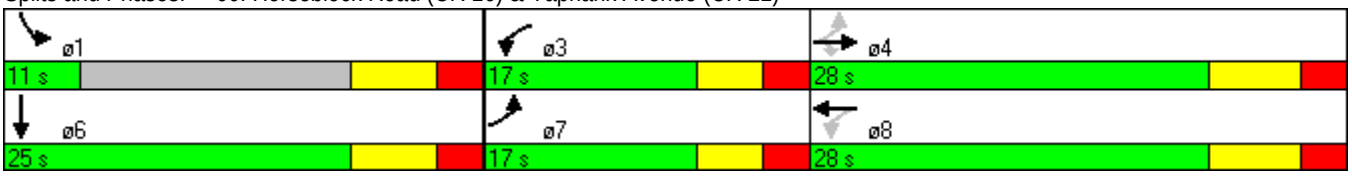
Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	180	591	36	79	1031	273	117
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	11.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	15.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	41.5	31.9	31.9	36.7	27.5	19.2	19.2
Actuated g/C Ratio	0.59	0.46	0.46	0.52	0.39	0.27	0.27
v/c Ratio	0.58	0.45	0.05	0.19	0.81	0.72	0.28
Control Delay	21.2	13.6	4.1	7.7	27.0	33.4	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	13.6	4.1	7.7	27.0	33.4	21.1
LOS	C	B	A	A	C	C	C
Approach Delay		14.9			25.6		29.7
Approach LOS		B			C		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 22.5 Intersection LOS: C
Intersection Capacity Utilization 63.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	807	1031	0	0	173
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.98	0.98	0.91	0.91
Hourly flow rate (vph)	0	859	1052	0	0	190
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.72				0.72	0.72
vC, conflicting volume	1052				1267	526
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	288				587	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	76
cM capacity (veh/h)	913				317	779

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	215	215	215	215	526	526	190
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	190
cSH	1700	1700	1700	1700	1700	1700	779
Volume to Capacity	0.13	0.13	0.13	0.13	0.31	0.31	0.24
Queue Length 95th (ft)	0	0	0	0	0	0	24
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.1
Lane LOS							B
Approach Delay (s)	0.0				0.0		11.1
Approach LOS							B

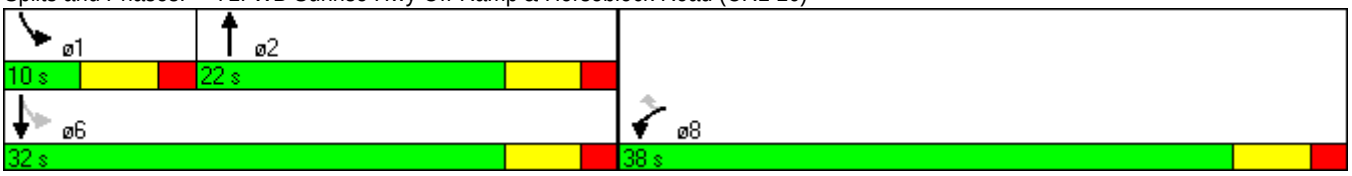
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	143	970	533	139	735
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	10.0	22.0
Total Split (s)	38.0	38.0	22.0	10.0	32.0
Total Split (%)	54.3%	54.3%	31.4%	14.3%	45.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	32.0	32.0	16.0	26.0	26.0
Actuated g/C Ratio	0.46	0.46	0.23	0.37	0.37
v/c Ratio	0.21	1.31	0.84	0.76	0.64
Control Delay	12.3	165.3	36.8	44.3	21.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	165.3	36.8	44.3	21.1
LOS	B	F	D	D	C
Approach Delay	145.7		36.8		24.8
Approach LOS	F		D		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay: 79.7 Intersection LOS: E
Intersection Capacity Utilization 87.0% ICU Level of Service E
Analysis Period (min) 15

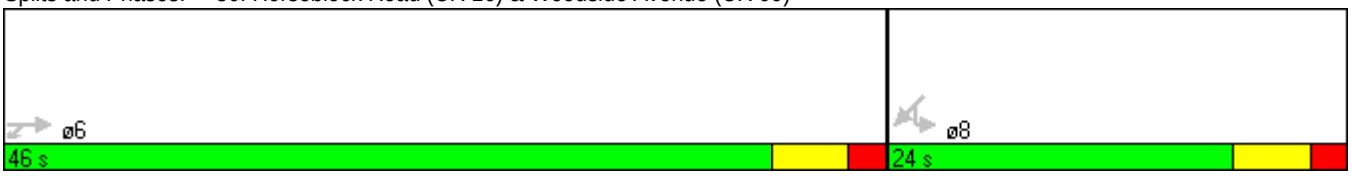
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	540	21	453
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	45.3	45.3	16.7
Actuated g/C Ratio	0.65	0.65	0.24
v/c Ratio	0.27	0.02	0.59
Control Delay	4.4	1.7	28.8
Queue Delay	0.0	0.0	0.0
Total Delay	4.4	1.7	28.8
LOS	A	A	C
Approach Delay	4.3		28.8
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 34.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

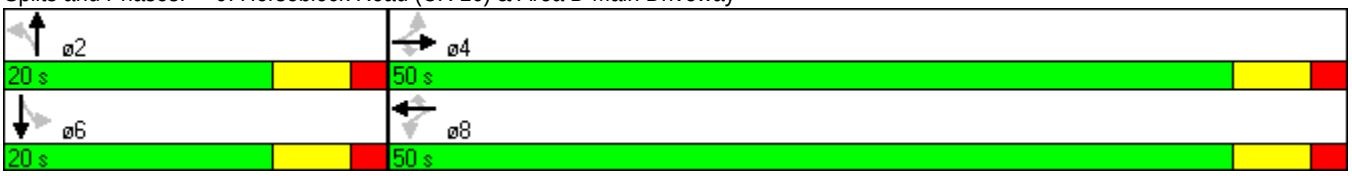


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	58	630	82	75	639	125	72	0	155	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0	1.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	7.0	7.0
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	20.0	20.0	20.0	20.0
Total Split (%)	71.4%	71.4%	71.4%	71.4%	71.4%	71.4%	28.6%	28.6%	28.6%	28.6%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	46.0	46.0	46.0	46.0	46.0	46.0	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.66	0.66	0.66	0.66	0.66	0.66	0.23	0.23	0.23	0.23
v/c Ratio	0.17	0.29	0.08	0.19	0.57	0.13	0.29	0.18	0.57	0.16
Control Delay	4.3	3.7	0.5	9.4	18.0	4.0	25.5	0.7	32.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	3.7	0.5	9.4	18.0	4.0	25.5	0.7	32.9	0.6
LOS	A	A	A	A	B	A	C	A	C	A
Approach Delay		3.4			15.2			11.7		21.5
Approach LOS		A			B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay: 11.2 Intersection LOS: B
Intersection Capacity Utilization 62.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

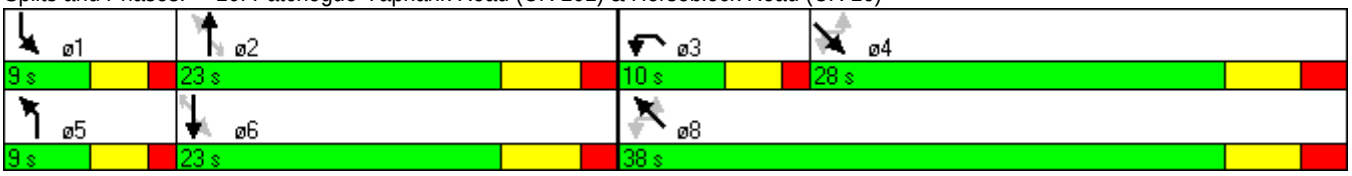


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	30	569	90	53	536	70	38	522	90	179	486	67
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.0	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	23.0	23.0	9.0	23.0	23.0	28.0	28.0	28.0	10.0	38.0	38.0
Total Split (%)	12.9%	32.9%	32.9%	12.9%	32.9%	32.9%	40.0%	40.0%	40.0%	14.3%	54.3%	54.3%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.6	22.6	22.6	26.4	24.4	24.4	24.0	24.0	24.0	34.0	34.0	34.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.35	0.35	0.34	0.34	0.34	0.49	0.49	0.49
v/c Ratio	0.10	0.54	0.18	0.20	0.49	0.13	0.21	1.06	0.18	0.89	0.70	0.11
Control Delay	13.8	22.8	6.0	15.0	20.8	6.3	7.8	59.9	1.3	53.3	16.8	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	22.8	6.0	15.0	20.8	6.3	7.8	59.9	1.3	53.3	16.8	2.5
LOS	B	C	A	B	C	A	A	E	A	D	B	A
Approach Delay		20.2			18.8			48.7			24.4	
Approach LOS		C			B			D			C	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 27.8 Intersection LOS: C
Intersection Capacity Utilization 69.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

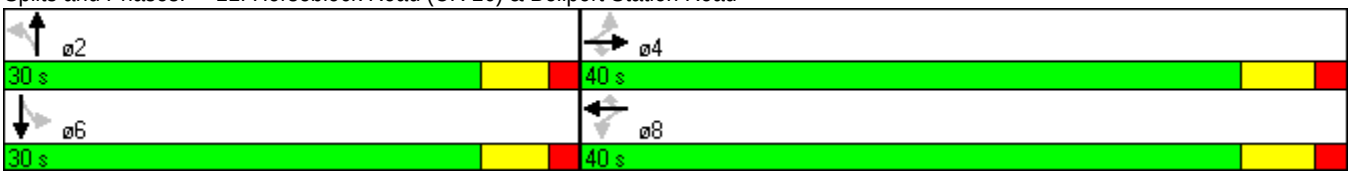


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	18	600	297	11	664	32	346	160	55	121
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.94	0.38		0.97	0.06		1.26		0.36
Control Delay		44.0	6.0		43.3	9.4		158.3		17.3
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		44.0	6.0		43.3	9.4		158.3		17.3
LOS		D	A		D	A		F		B
Approach Delay		31.7			41.8			158.3		17.3
Approach LOS		C			D			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 62.3 Intersection LOS: E
Intersection Capacity Utilization 95.4% ICU Level of Service F
Analysis Period (min) 15

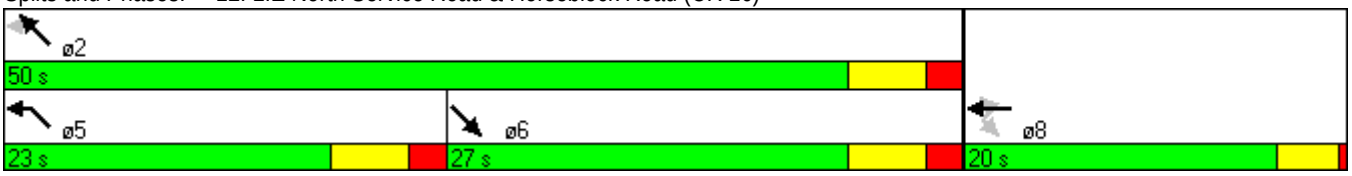
Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road



Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	257	118	839	526	677
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	10.0	22.0
Total Split (s)	20.0	20.0	27.0	23.0	50.0
Total Split (%)	28.6%	28.6%	38.6%	32.9%	71.4%
Yellow Time (s)	3.3	3.3	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.7	14.7	23.6	47.3	47.3
Actuated g/C Ratio	0.21	0.21	0.34	0.68	0.68
v/c Ratio	0.73	0.32	0.75	0.94	0.58
Control Delay	31.8	6.9	25.1	29.4	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	6.9	25.1	29.4	13.2
LOS	C	A	C	C	B
Approach Delay	26.9		25.1		20.3
Approach LOS	C		C		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

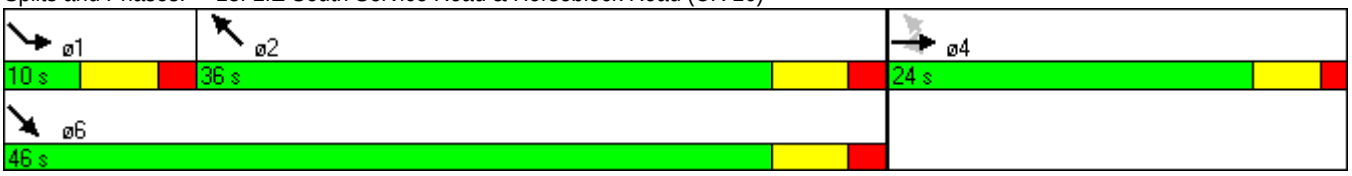


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	137	99	484	308	663	958
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	24.0	24.0	24.0	10.0	46.0	36.0
Total Split (%)	34.3%	34.3%	34.3%	14.3%	65.7%	51.4%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.8	18.8	18.8	7.2	43.2	32.0
Actuated g/C Ratio	0.27	0.27	0.27	0.10	0.62	0.46
v/c Ratio	0.27	0.20	0.92	0.99	0.34	1.28
Control Delay	21.2	20.3	38.9	77.9	5.3	155.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	20.3	38.9	77.9	5.3	155.3
LOS	C	C	D	E	A	F
Approach Delay		33.0			28.3	155.3
Approach LOS		C			C	F

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.28
Intersection Signal Delay: 77.9 Intersection LOS: E
Intersection Capacity Utilization 79.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	12	703	6	8	746
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	13	764	7	9	811
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked						
vC, conflicting volume	1187	764			771	
vC1, stage 1 conf vol	764					
vC2, stage 2 conf vol	423					
vCu, unblocked vol	1187	764			771	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	96			99	
cM capacity (veh/h)	373	346			840	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	18	764	7	9	405	405
Volume Left	5	0	0	9	0	0
Volume Right	13	0	7	0	0	0
cSH	354	1700	1700	840	1700	1700
Volume to Capacity	0.05	0.45	0.00	0.01	0.24	0.24
Queue Length 95th (ft)	4	0	0	1	0	0
Control Delay (s)	15.7	0.0	0.0	9.3	0.0	0.0
Lane LOS	C			A		
Approach Delay (s)	15.7	0.0		0.1		
Approach LOS	C					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	321	6	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	349	7	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	458					
pX, platoon unblocked						
vC, conflicting volume			355		349	349
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			355		349	349
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1203		648	694

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	349	7	0
Volume Left	0	0	0
Volume Right	0	7	0
cSH	1700	1700	1700
Volume to Capacity	0.21	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0		0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

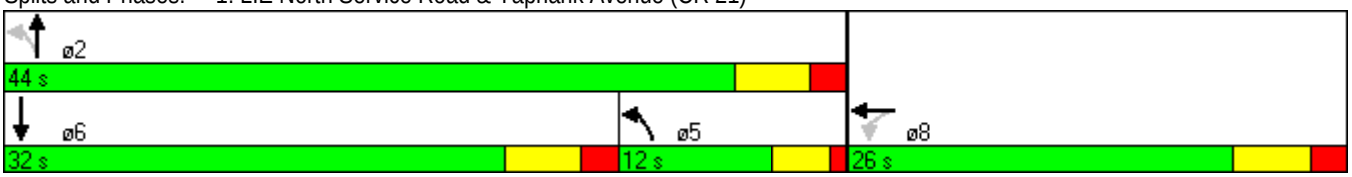
AS-OF RIGHT BUILD PM PEAK HOUR
LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	7	747	319	227
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	26.0	12.0	44.0	32.0
Total Split (%)	37.1%	17.1%	62.9%	45.7%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	19.5	42.5	42.5	30.5
Actuated g/C Ratio	0.28	0.61	0.61	0.44
v/c Ratio	1.00dl	1.21	0.36	0.18
Control Delay	24.7	109.7	0.8	11.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.7	109.7	0.8	11.4
LOS	C	F	A	B
Approach Delay	24.7		77.2	11.4
Approach LOS	C		E	B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.21
Intersection Signal Delay: 53.4 Intersection LOS: D
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

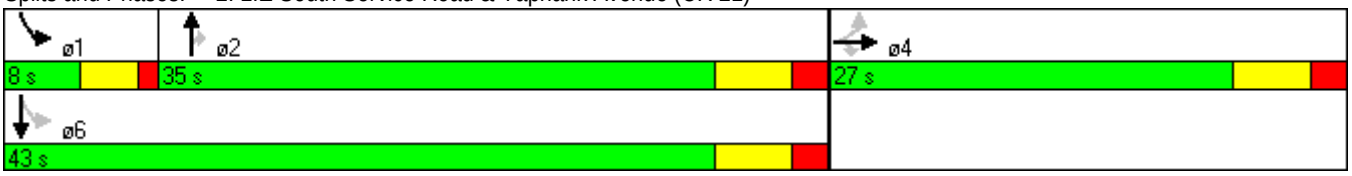


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	637	1011	1184	91	643
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	27.0	27.0	35.0	35.0	8.0	43.0
Total Split (%)	38.6%	38.6%	50.0%	50.0%	11.4%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.0	23.0	32.6	32.6	39.0	39.0
Actuated g/C Ratio	0.33	0.33	0.47	0.47	0.56	0.56
v/c Ratio	0.19	1.15	1.42	1.17	0.47	0.36
Control Delay	18.0	102.9	216.9	96.8	13.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	102.9	216.9	96.8	13.7	3.3
LOS	B	F	F	F	B	A
Approach Delay	91.8		152.1			4.6
Approach LOS	F		F			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.42
Intersection Signal Delay: 112.7 Intersection LOS: F
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	0	28	22	0	47	14	2044	18	13	1336	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.59	0.59	0.59	0.43	0.43	0.43	0.91	0.91	0.91	0.97	0.97	0.97
Hourly flow rate (vph)	31	0	47	51	0	109	15	2246	20	13	1377	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked	0.94	0.94	0.94	0.94	0.94		0.94					
vC, conflicting volume	3790	3701	689	3040	3688	2246	1385			2266		
vC1, stage 1 conf vol	1404	1404		2277	2277							
vC2, stage 2 conf vol	2386	2297		763	1411							
vCu, unblocked vol	3840	3745	544	3042	3731	2246	1283			2266		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	100	90	0	100	0	97			94		
cM capacity (veh/h)	0	53	455	38	64	34	505			222		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	78	160	15	2246	20	13	689	689	7
Volume Left	31	51	15	0	0	13	0	0	0
Volume Right	47	109	0	0	20	0	0	0	7
cSH	0	35	505	1700	1700	222	1700	1700	1700
Volume to Capacity	Err	4.57	0.03	1.32	0.01	0.06	0.41	0.41	0.00
Queue Length 95th (ft)	Err	Err	2	0	0	5	0	0	0
Control Delay (s)	Err	Err	12.4	0.0	0.0	22.2	0.0	0.0	0.0
Lane LOS	F	F	B			C			
Approach Delay (s)	Err	Err	0.1			0.2			
Approach LOS	F	F							

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	119.2%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	34	1959	14	99	988
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.92	0.92	0.94	0.94
Hourly flow rate (vph)	7	41	2129	15	105	1051
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	3391	2129			2145	
vC1, stage 1 conf vol	2129					
vC2, stage 2 conf vol	1262					
vCu, unblocked vol	3391	2129			2145	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	35			58	
cM capacity (veh/h)	79	63			251	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	2129	15	105	1051
Volume Left	7	0	0	105	0
Volume Right	41	0	15	0	0
cSH	64	1700	1700	251	1700
Volume to Capacity	0.74	1.25	0.01	0.42	0.62
Queue Length 95th (ft)	83	0	0	49	0
Control Delay (s)	150.8	0.0	0.0	29.3	0.0
Lane LOS	F			D	
Approach Delay (s)	150.8	0.0		2.7	
Approach LOS	F				

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	113.1%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	917	691	183	1057	815	185
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.88	0.88	0.90	0.90
Hourly flow rate (vph)	1079	813	208	1201	906	206
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				TWLTL	TWLTL	
Median storage veh)				2	2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2523	906	906			
vC1, stage 1 conf vol	906					
vC2, stage 2 conf vol	1617					
vCu, unblocked vol	2523	906	906			
tC, single (s)	6.4	6.2	4.2			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.3			
p0 queue free %	0	0	71			
cM capacity (veh/h)	117	332	723			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	1079	813	208	1201	906	206
Volume Left	1079	0	208	0	0	0
Volume Right	0	813	0	0	0	206
cSH	117	332	723	1700	1700	1700
Volume to Capacity	9.24	2.45	0.29	0.71	0.53	0.12
Queue Length 95th (ft)	Err	1621	30	0	0	0
Control Delay (s)	Err	686.1	12.0	0.0	0.0	0.0
Lane LOS	F	F	B			
Approach Delay (s)	5997.0		1.8		0.0	
Approach LOS	F					

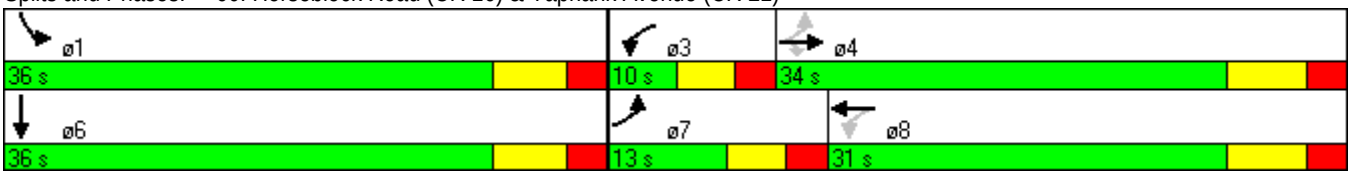
Intersection Summary			
Average Delay	2572.0		
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	586	1672	44	29	677	1042	442
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	13.0	34.0	34.0	10.0	31.0	36.0	36.0
Total Split (%)	16.3%	42.5%	42.5%	12.5%	38.8%	45.0%	45.0%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	39.6	36.0	36.0	33.0	27.0	32.0	32.0
Actuated g/C Ratio	0.50	0.45	0.45	0.41	0.34	0.40	0.40
v/c Ratio	2.13	1.26	0.07	0.15	0.60	1.75	0.68
Control Delay	523.9	139.0	4.4	12.3	24.6	367.1	25.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	523.9	139.0	4.4	12.3	24.6	367.1	25.7
LOS	F	F	A	B	C	F	C
Approach Delay		234.4			24.1		265.4
Approach LOS		F			C		F

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 37 (46%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.13
Intersection Signal Delay: 213.5 Intersection LOS: F
Intersection Capacity Utilization 118.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	2302	677	0	0	296
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	2558	752	0	0	329
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.83				0.83	0.83
vC, conflicting volume	752				1392	376
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	298				1067	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	64
cM capacity (veh/h)	1048				181	902

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	639	639	639	639	376	376	329
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	329
cSH	1700	1700	1700	1700	1700	1700	902
Volume to Capacity	0.38	0.38	0.38	0.38	0.22	0.22	0.36
Queue Length 95th (ft)	0	0	0	0	0	0	42
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	11.3
Lane LOS							B
Approach Delay (s)	0.0				0.0		11.3
Approach LOS							B

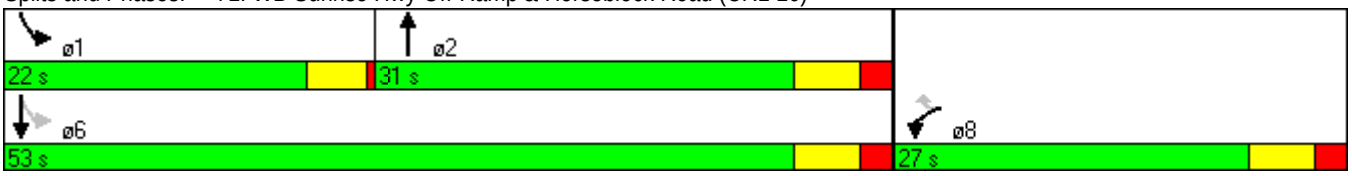
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	69	666	226	279	2330
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	8.0	22.0
Total Split (s)	27.0	27.0	31.0	22.0	53.0
Total Split (%)	33.8%	33.8%	38.8%	27.5%	66.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	4.0
All-Red Time (s)	2.0	2.0	2.0	0.5	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	4.0	6.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.9	12.9	38.6	57.1	55.1
Actuated g/C Ratio	0.16	0.16	0.48	0.71	0.69
v/c Ratio	0.26	0.87	0.49	0.61	1.06
Control Delay	29.1	15.7	6.1	11.3	53.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	15.7	6.1	11.3	53.2
LOS	C	B	A	B	D
Approach Delay	16.9		6.1		48.7
Approach LOS	B		A		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 34.9 Intersection LOS: C
Intersection Capacity Utilization 78.2% ICU Level of Service D
Analysis Period (min) 15

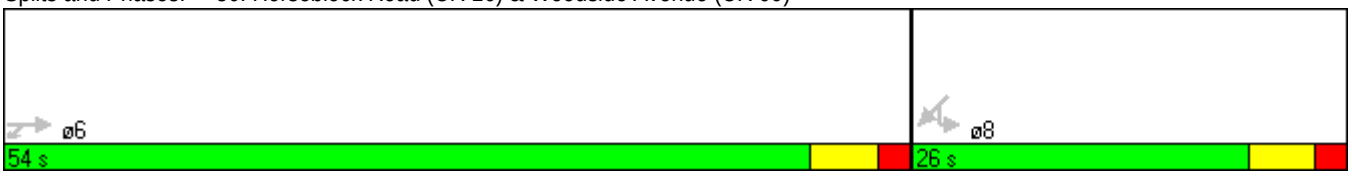
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	849	14	325
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	32.5%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	54.0	54.0	18.0
Actuated g/C Ratio	0.68	0.68	0.22
v/c Ratio	0.40	0.02	0.63
Control Delay	5.0	1.8	25.3
Queue Delay	0.0	0.0	0.0
Total Delay	5.0	1.8	25.3
LOS	A	A	C
Approach Delay	4.9		25.3
Approach LOS	A		C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green, Master Intersection	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 42.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)

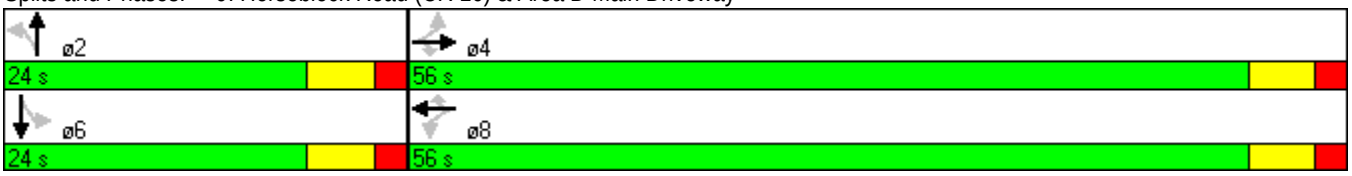


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	100	1197	3	3	674	215	21	0	924	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Total Split (s)	56.0	56.0	56.0	56.0	56.0	56.0	24.0	24.0	24.0	24.0
Total Split (%)	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	30.0%	30.0%	30.0%	30.0%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	52.0	52.0	52.0	52.0	52.0	52.0	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65	0.25	0.25	0.25	0.25
v/c Ratio	0.36	0.61	0.00	0.02	0.61	0.21	0.27	0.07	2.92	0.93
Control Delay	9.6	8.9	3.3	7.0	19.6	5.7	33.0	2.4	888.3	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	8.9	3.3	7.0	19.6	5.7	33.0	2.4	888.3	40.9
LOS	A	A	A	A	B	A	C	A	F	D
Approach Delay		8.9			16.2			16.6		591.2
Approach LOS		A			B			B		F

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 6 (8%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.92
Intersection Signal Delay: 230.3 Intersection LOS: F
Intersection Capacity Utilization 108.9% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

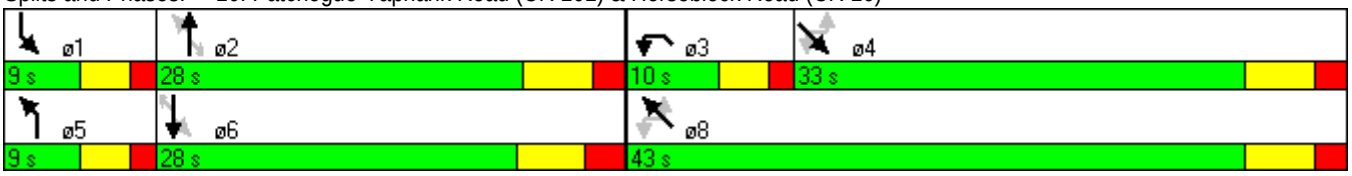


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	40	887	56	80	742	72	19	722	95	190	922	164
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	28.0	28.0	9.0	28.0	28.0	33.0	33.0	33.0	10.0	43.0	43.0
Total Split (%)	11.3%	35.0%	35.0%	11.3%	35.0%	35.0%	41.3%	41.3%	41.3%	12.5%	53.8%	53.8%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.0	4.0	4.2	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	1.5	2.0	2.0	1.5	2.5	2.5	2.0	2.0	2.0	1.5	2.0	2.0
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.5	-2.5	-2.2	-2.2	-2.2	-0.5	-2.2	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.8	25.8	25.8	30.6	27.6	27.6	29.0	29.0	29.0	39.0	39.0	39.0
Actuated g/C Ratio	0.37	0.32	0.32	0.38	0.34	0.34	0.36	0.36	0.36	0.49	0.49	0.49
v/c Ratio	0.24	0.94	0.13	0.47	0.73	0.15	0.24	1.34	0.18	1.07	1.27	0.23
Control Delay	17.5	45.9	6.6	23.0	28.6	5.9	14.7	175.6	4.3	103.3	153.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	45.9	6.6	23.0	28.6	5.9	14.7	175.6	4.3	103.3	153.5	2.8
LOS	B	D	A	C	C	A	B	F	A	F	F	A
Approach Delay		42.5			26.3			152.6			126.7	
Approach LOS		D			C			F			F	

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 89.1 Intersection LOS: F
Intersection Capacity Utilization 99.1% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

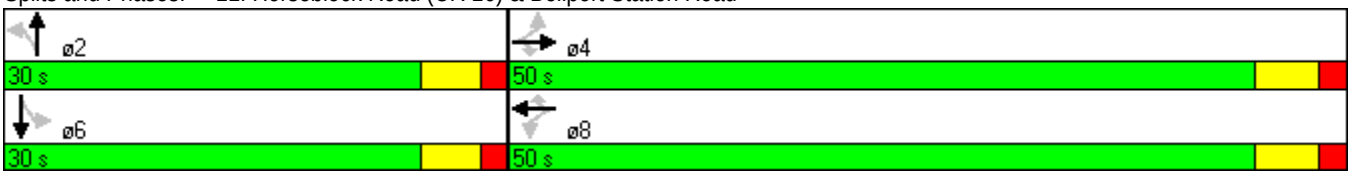


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	53	749	384	7	913	123	246	204	116	200
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	30.0	30.0	30.0	30.0
Total Split (%)	62.5%	62.5%	62.5%	62.5%	62.5%	62.5%	37.5%	37.5%	37.5%	37.5%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		26.0		26.0
Actuated g/C Ratio		0.58	0.58		0.58	0.58		0.32		0.32
v/c Ratio		2.99	0.41		1.08	0.17		1.29		0.79
Control Delay		921.4	4.7		66.2	12.7		176.3		37.4
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		921.4	4.7		66.2	12.7		176.3		37.4
LOS		F	A		E	B		F		D
Approach Delay		624.5			59.9			176.3		37.4
Approach LOS		F			E			F		D

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 46 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.99
Intersection Signal Delay: 285.5 Intersection LOS: F
Intersection Capacity Utilization 130.3% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

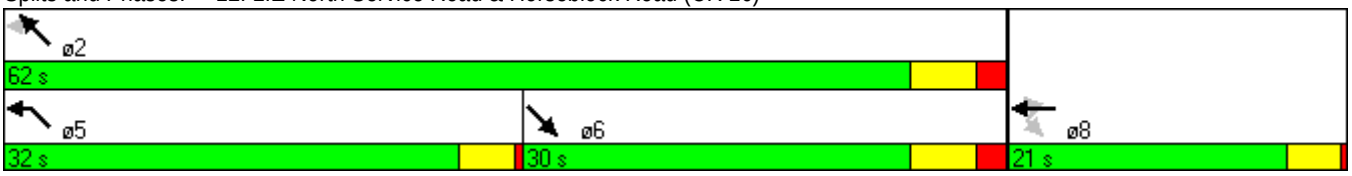


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	370	135	1043	943	752
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	6.0	6.0	4.0	4.0	4.0
Minimum Split (s)	9.8	9.8	22.0	8.0	22.0
Total Split (s)	21.0	21.0	30.0	32.0	62.0
Total Split (%)	25.3%	25.3%	36.1%	38.6%	74.7%
Yellow Time (s)	3.3	3.3	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.2	0.2	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	2.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.0	17.0	26.0	60.0	58.0
Actuated g/C Ratio	0.20	0.20	0.31	0.72	0.70
v/c Ratio	0.98	0.34	0.96	1.41	0.63
Control Delay	63.1	7.7	47.5	213.7	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	63.1	7.7	47.5	213.7	9.5
LOS	E	A	D	F	A
Approach Delay	53.9		47.5		123.1
Approach LOS	D		D		F

Intersection Summary

Cycle Length: 83
Actuated Cycle Length: 83
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 84.9 Intersection LOS: F
Intersection Capacity Utilization 111.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

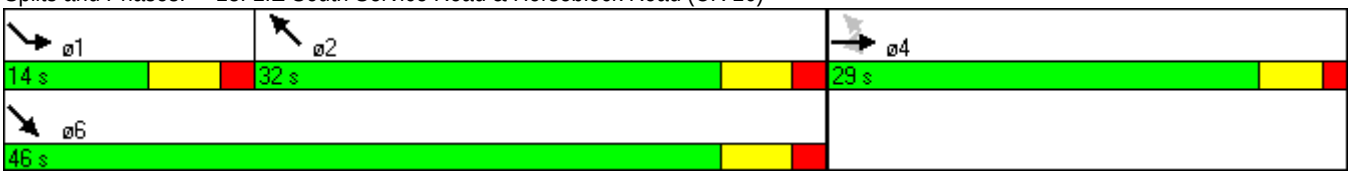


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	274	152	655	469	876	1349
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	25.0	25.0	25.0	10.0	42.0	28.0
Actuated g/C Ratio	0.33	0.33	0.33	0.13	0.56	0.37
v/c Ratio	0.48	0.28	1.35	1.14	0.49	1.96
Control Delay	22.8	19.9	191.6	118.9	11.1	458.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	19.9	191.6	118.9	11.1	458.6
LOS	C	B	F	F	B	F
Approach Delay		124.7			48.7	458.6
Approach LOS		F			D	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.96
Intersection Signal Delay: 212.0 Intersection LOS: F
Intersection Capacity Utilization 111.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	4	9	2100	7	9	1351
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	10	2283	8	10	1468
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked	0.91					
vC, conflicting volume	3036	2283			2290	
vC1, stage 1 conf vol	2283					
vC2, stage 2 conf vol	754					
vCu, unblocked vol	3040	2283			2290	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	69			96	
cM capacity (veh/h)	61	32			217	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	14	2283	8	10	734	734
Volume Left	4	0	0	10	0	0
Volume Right	10	0	8	0	0	0
cSH	37	1700	1700	217	1700	1700
Volume to Capacity	0.38	1.34	0.00	0.04	0.43	0.43
Queue Length 95th (ft)	32	0	0	4	0	0
Control Delay (s)	151.0	0.0	0.0	22.3	0.0	0.0
Lane LOS	F			C		
Approach Delay (s)	151.0	0.0		0.1		
Approach LOS	F					

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	120.5%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	867	7	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	942	8	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	441					
pX, platoon unblocked						
vC, conflicting volume			950		942	942
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			950		942	942
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			723		292	319

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	942	8	0
Volume Left	0	0	0
Volume Right	0	8	0
cSH	1700	1700	1700
Volume to Capacity	0.55	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0		0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

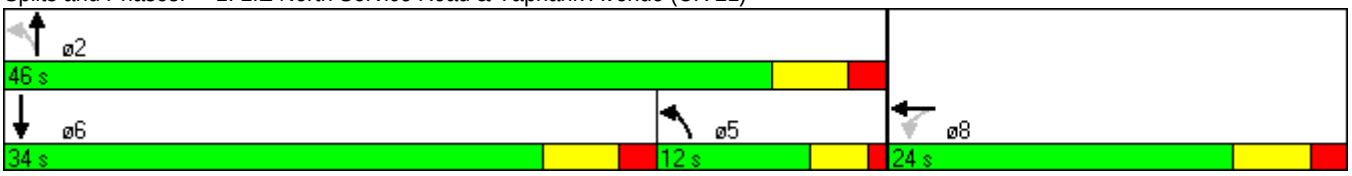
AS-OF RIGHT BUILD SATURDAY PEAK HOUR LEVEL OF SERVICE/CAPACITY WORKSHEETS

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	6	256	215	150
Turn Type		pm+pt		
Protected Phases	8	5	2	6
Permitted Phases		2		
Detector Phase	8	5	2	6
Switch Phase				
Minimum Initial (s)	7.0	4.0	12.0	12.0
Minimum Split (s)	22.0	8.0	36.0	22.0
Total Split (s)	24.0	12.0	46.0	34.0
Total Split (%)	34.3%	17.1%	65.7%	48.6%
Yellow Time (s)	4.0	3.0	4.0	4.0
All-Red Time (s)	2.0	1.0	2.0	2.0
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	13.6	48.4	48.4	36.4
Actuated g/C Ratio	0.19	0.69	0.69	0.52
v/c Ratio	0.49	0.36	0.21	0.13
Control Delay	24.8	2.5	1.2	6.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.8	2.5	1.2	6.6
LOS	C	A	A	A
Approach Delay	24.8		1.9	6.6
Approach LOS	C		A	A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 10 (14%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 9.4 Intersection LOS: A
Intersection Capacity Utilization 42.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: LIE North Service Road & Yaphank Avenue (CR 21)

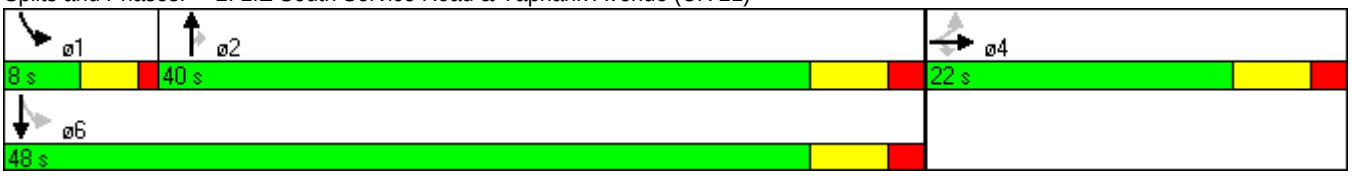


Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	15	283	395	248	62	305
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	7.0	7.0	4.0	4.0	4.0	12.0
Minimum Split (s)	22.0	22.0	12.0	12.0	8.0	22.0
Total Split (s)	22.0	22.0	40.0	40.0	8.0	48.0
Total Split (%)	31.4%	31.4%	57.1%	57.1%	11.4%	68.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	0.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	12.1	12.1	42.0	42.0	49.9	49.9
Actuated g/C Ratio	0.17	0.17	0.60	0.60	0.71	0.71
v/c Ratio	0.33	0.61	0.43	0.29	0.13	0.15
Control Delay	27.2	8.5	10.5	2.1	1.7	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	8.5	10.5	2.1	1.7	1.4
LOS	C	A	B	A	A	A
Approach Delay	12.9		7.2			1.4
Approach LOS	B		A			A

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 7.2 Intersection LOS: A
Intersection Capacity Utilization 42.3% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: LIE South Service Road & Yaphank Avenue (CR 21)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	7	0	0	3	6	602	0	0	555	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.87	0.87	0.87	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	8	0	0	4	7	692	0	0	578	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage veh)								2			2	
Upstream signal (ft)											1288	
pX, platoon unblocked												
vC, conflicting volume	1287	1284	289	1003	1289	692	583			692		
vC1, stage 1 conf vol	578	578		706	706							
vC2, stage 2 conf vol	709	706		297	583							
vCu, unblocked vol	1287	1284	289	1003	1289	692	583			692		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.5	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	99	100	100	99	99			100		
cM capacity (veh/h)	312	353	708	360	351	386	987			899		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	16	4	7	692	0	0	289	289	5
Volume Left	8	0	7	0	0	0	0	0	0
Volume Right	8	4	0	0	0	0	0	0	5
cSH	433	386	987	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.04	0.01	0.01	0.41	0.00	0.00	0.17	0.17	0.00
Queue Length 95th (ft)	3	1	1	0	0	0	0	0	0
Control Delay (s)	13.7	14.4	8.7	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	B	B	A						
Approach Delay (s)	13.7	14.4	0.1			0.0			
Approach LOS	B	B							

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	75	499	29	84	486
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.91	0.91
Hourly flow rate (vph)	16	88	587	34	92	534
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			TWLTL
Median storage veh)			2			2
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1306	587			621	
vC1, stage 1 conf vol	587					
vC2, stage 2 conf vol	719					
vCu, unblocked vol	1306	587			621	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	83			90	
cM capacity (veh/h)	366	509			960	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	105	587	34	92	534
Volume Left	16	0	0	92	0
Volume Right	88	0	34	0	0
cSH	480	1700	1700	960	1700
Volume to Capacity	0.22	0.35	0.02	0.10	0.31
Queue Length 95th (ft)	21	0	0	8	0
Control Delay (s)	14.6	0.0	0.0	9.2	0.0
Lane LOS	B			A	
Approach Delay (s)	14.6	0.0		1.3	
Approach LOS	B				

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	151	129	112	386	361	125
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	178	152	132	454	425	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1142	425	425			
vC1, stage 1 conf vol	425					
vC2, stage 2 conf vol	718					
vCu, unblocked vol	1142	425	425			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	76	88			
cM capacity (veh/h)	385	629	1135			

Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	178	152	132	454	425	147
Volume Left	178	0	132	0	0	0
Volume Right	0	152	0	0	0	147
cSH	385	629	1135	1700	1700	1700
Volume to Capacity	0.46	0.24	0.12	0.27	0.25	0.09
Queue Length 95th (ft)	59	23	10	0	0	0
Control Delay (s)	22.1	12.5	8.6	0.0	0.0	0.0
Lane LOS	C	B	A			
Approach Delay (s)	17.7		1.9		0.0	
Approach LOS	C					

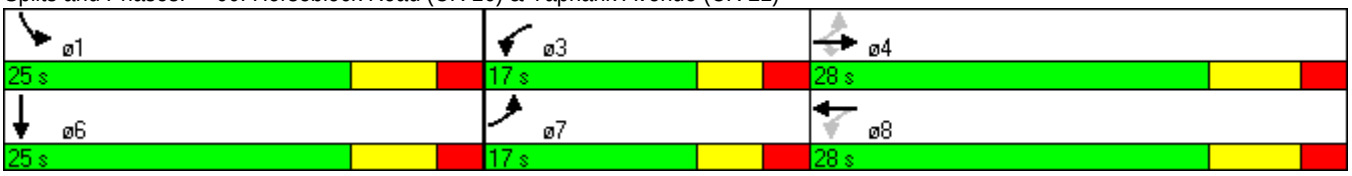
Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations							
Volume (vph)	159	829	48	41	688	239	95
Turn Type	pm+pt		Perm	pm+pt		Prot	
Protected Phases	7	4		3	8	1	6
Permitted Phases	4		4	8			
Detector Phase	7	4	4	3	8	1	6
Switch Phase							
Minimum Initial (s)	3.0	20.0	20.0	3.0	20.0	4.0	8.0
Minimum Split (s)	10.0	27.3	27.3	10.0	27.3	11.0	15.0
Total Split (s)	17.0	28.0	28.0	17.0	28.0	25.0	25.0
Total Split (%)	24.3%	40.0%	40.0%	24.3%	40.0%	35.7%	35.7%
Yellow Time (s)	3.5	4.8	4.8	3.5	4.8	4.5	4.5
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-3.3	-3.3	-2.0	-3.3	-3.0	-3.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	43.4	36.2	36.2	37.5	29.1	18.1	18.1
Actuated g/C Ratio	0.62	0.52	0.52	0.54	0.42	0.26	0.26
v/c Ratio	0.42	0.55	0.06	0.13	0.52	0.60	0.22
Control Delay	9.9	13.3	3.5	7.2	18.0	28.6	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	13.3	3.5	7.2	18.0	28.6	20.5
LOS	A	B	A	A	B	C	C
Approach Delay		12.4			17.4		26.3
Approach LOS		B			B		C

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 47 (67%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 16.2 Intersection LOS: B
Intersection Capacity Utilization 51.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 60: Horseblock Road (CR 16) & Yaphank Avenue (CR 21)



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (veh/h)	0	1036	688	0	0	137
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.93	0.93
Hourly flow rate (vph)	0	1205	764	0	0	147
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			176			
pX, platoon unblocked	0.84				0.84	0.84
vC, conflicting volume	764				1066	382
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	337				696	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	84
cM capacity (veh/h)	1023				315	910

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	SW 1
Volume Total	301	301	301	301	382	382	147
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	147
cSH	1700	1700	1700	1700	1700	1700	910
Volume to Capacity	0.18	0.18	0.18	0.18	0.22	0.22	0.16
Queue Length 95th (ft)	0	0	0	0	0	0	14
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Lane LOS							A
Approach Delay (s)	0.0				0.0		9.7
Approach LOS							A

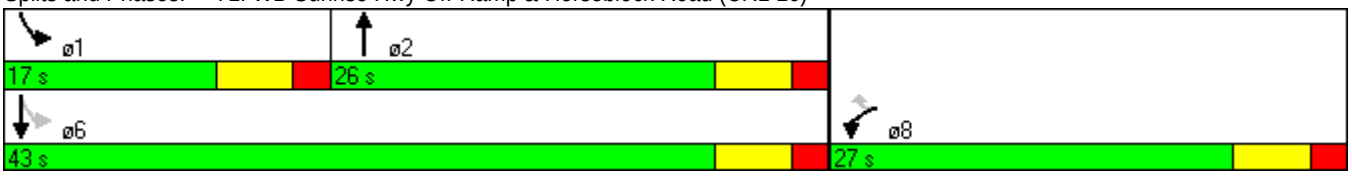
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	58	556	498	231	785
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	10.0	22.0
Total Split (s)	27.0	27.0	26.0	17.0	43.0
Total Split (%)	38.6%	38.6%	37.1%	24.3%	61.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	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			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.8	16.8	25.4	41.2	41.2
Actuated g/C Ratio	0.24	0.24	0.36	0.59	0.59
v/c Ratio	0.16	0.92	0.60	0.60	0.41
Control Delay	19.6	28.1	20.6	14.6	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.6	28.1	20.6	14.6	9.6
LOS	B	C	C	B	A
Approach Delay	27.3		20.6		10.7
Approach LOS	C		C		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 18.2 Intersection LOS: B
Intersection Capacity Utilization 63.7% ICU Level of Service B
Analysis Period (min) 15

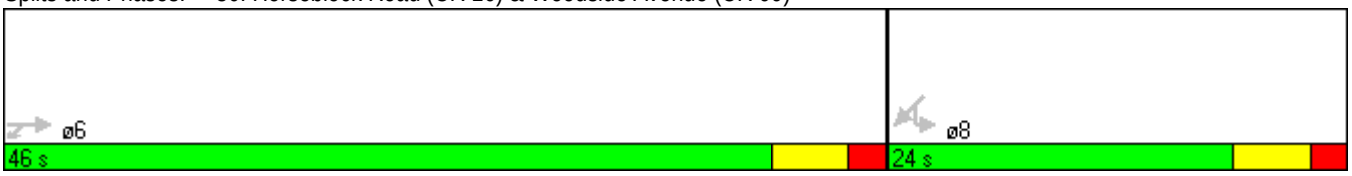
Splits and Phases: 71: WB Sunrise Hwy Off-Ramp & Horseblock Road (CR1 16)



Lane Group	EBT	EBR	SWT
Lane Configurations			
Volume (vph)	592	18	214
Turn Type		custom	
Protected Phases			
Permitted Phases	6	6	8
Detector Phase	6	6	8
Switch Phase			
Minimum Initial (s)	4.0	4.0	3.5
Minimum Split (s)	16.0	16.0	9.5
Total Split (s)	46.0	46.0	24.0
Total Split (%)	65.7%	65.7%	34.3%
Yellow Time (s)	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Max	C-Max	None
Act Effct Green (s)	50.0	50.0	12.0
Actuated g/C Ratio	0.71	0.71	0.17
v/c Ratio	0.26	0.02	0.41
Control Delay	2.9	1.1	31.0
Queue Delay	0.0	0.0	0.0
Total Delay	2.9	1.1	31.0
LOS	A	A	C
Approach Delay	2.8		31.0
Approach LOS	A		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 0 (0%), Referenced to phase 6:EBT, Start of Green	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 29.6%	ICU Level of Service A
Analysis Period (min) 15	

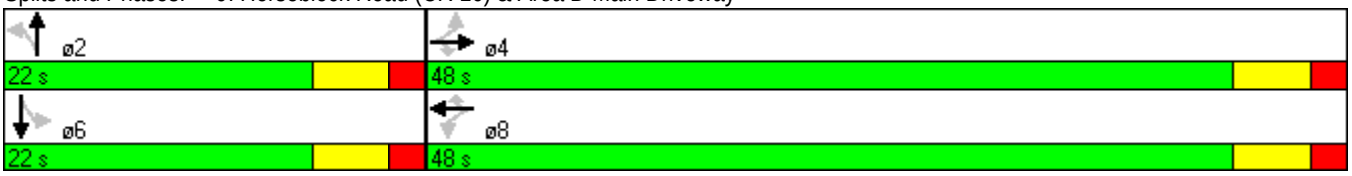
Splits and Phases: 80: Horseblock Road (CR 16) & Woodside Avenue (CR 99)



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	58	554	163	114	644	125	144	0	155	0
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	22.0	22.0
Total Split (s)	48.0	48.0	48.0	48.0	48.0	48.0	22.0	22.0	22.0	22.0
Total Split (%)	68.6%	68.6%	68.6%	68.6%	68.6%	68.6%	31.4%	31.4%	31.4%	31.4%
Yellow Time (s)	4.0	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	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	None	None
Act Effct Green (s)	44.0	44.0	44.0	44.0	44.0	44.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.26	0.26	0.26	0.26
v/c Ratio	0.18	0.26	0.16	0.25	0.59	0.13	0.49	0.28	0.61	0.15
Control Delay	5.4	4.7	0.6	13.2	20.8	5.8	27.9	1.1	34.0	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	4.7	0.6	13.2	20.8	5.8	27.9	1.1	34.0	0.5
LOS	A	A	A	B	C	A	C	A	C	A
Approach Delay		3.9			17.7			13.7		22.3
Approach LOS		A			B			B		C

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 70	
Offset: 24 (34%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Horseblock Road (CR 16) & Area D Main Driveway

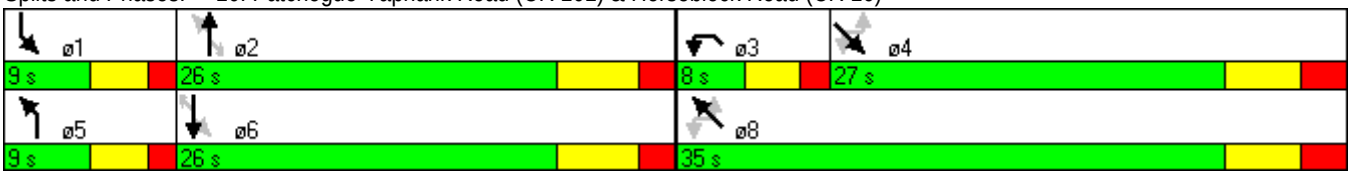


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	42	596	64	60	584	55	72	585	33	97	616	61
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		Perm	pm+pt		Perm
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2		2	6		6	4		4	8		8
Detector Phase	5	2	2	1	6	6	4	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	3.0	10.0	10.0	3.0	10.0	10.0	10.0	10.0	10.0	3.0	10.0	10.0
Minimum Split (s)	8.5	22.5	22.5	8.5	22.5	22.5	22.2	22.2	22.2	7.5	22.2	22.2
Total Split (s)	9.0	26.0	26.0	9.0	26.0	26.0	27.0	27.0	27.0	8.0	35.0	35.0
Total Split (%)	12.9%	37.1%	37.1%	12.9%	37.1%	37.1%	38.6%	38.6%	38.6%	11.4%	50.0%	50.0%
Yellow Time (s)	3.0	4.2	4.2	3.0	4.2	4.2	4.0	4.0	4.0	3.0	4.0	4.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0	2.0	2.5	2.5	2.5	1.5	2.5	2.5
Lost Time Adjust (s)	-0.5	-2.2	-2.2	-0.5	-2.2	-2.2	-2.5	-2.5	-2.5	-0.5	-2.5	-2.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Recall Mode	None	Max	Max	None	Max	Max	C-Max	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	28.6	25.6	25.6	28.6	25.6	25.6	24.6	24.6	24.6	31.0	31.0	31.0
Actuated g/C Ratio	0.41	0.37	0.37	0.41	0.37	0.37	0.35	0.35	0.35	0.44	0.44	0.44
v/c Ratio	0.15	0.52	0.12	0.22	0.51	0.10	0.67	1.06	0.06	0.48	0.76	0.08
Control Delay	12.5	20.2	5.6	13.3	20.0	5.8	28.9	60.1	1.6	17.8	20.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	20.2	5.6	13.3	20.0	5.8	28.9	60.1	1.6	17.8	20.9	3.2
LOS	B	C	A	B	B	A	C	E	A	B	C	A
Approach Delay		18.4			18.3			54.0			19.1	
Approach LOS		B			B			D			B	

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 4:SETL and 8:NWTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 27.4 Intersection LOS: C
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 10: Patchogue-Yaphank Road (CR 101) & Horseblock Road (CR 16)

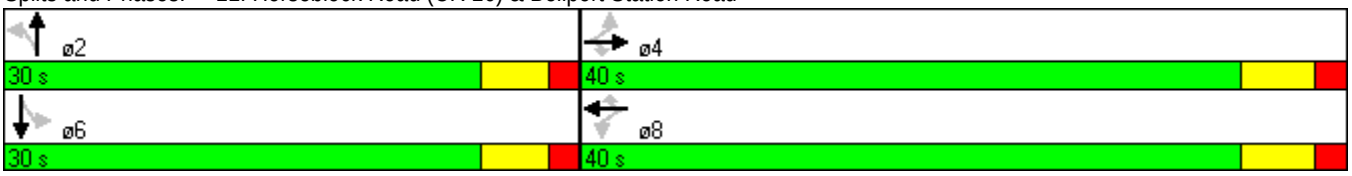


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	28	622	393	6	682	55	308	170	47	120
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	
Protected Phases		4			8			2		6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	4	4	4	8	8	8	2	2	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	21.2	21.2	21.2	21.2
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	30.0	30.0	30.0	30.0
Total Split (%)	57.1%	57.1%	57.1%	57.1%	57.1%	57.1%	42.9%	42.9%	42.9%	42.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	3.8	3.5	3.5	3.5	3.5
All-Red Time (s)	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Lost Time Adjust (s)	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.2	-1.2	-1.2	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	C-Max	C-Max	C-Max	C-Min	C-Min	C-Min	None	None	None	None
Act Effct Green (s)		36.0	36.0		36.0	36.0		26.0		26.0
Actuated g/C Ratio		0.51	0.51		0.51	0.51		0.37		0.37
v/c Ratio		0.95	0.46		0.81	0.08		1.07		0.38
Control Delay		40.4	4.7		24.8	10.9		87.0		16.5
Queue Delay		0.0	0.0		0.0	0.0		0.0		0.0
Total Delay		40.4	4.7		24.8	10.9		87.0		16.5
LOS		D	A		C	B		F		B
Approach Delay		26.9			23.8			87.0		16.5
Approach LOS		C			C			F		B

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 48 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 36.6 Intersection LOS: D
Intersection Capacity Utilization 104.2% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 11: Horseblock Road (CR 16) & Bellport Station Road

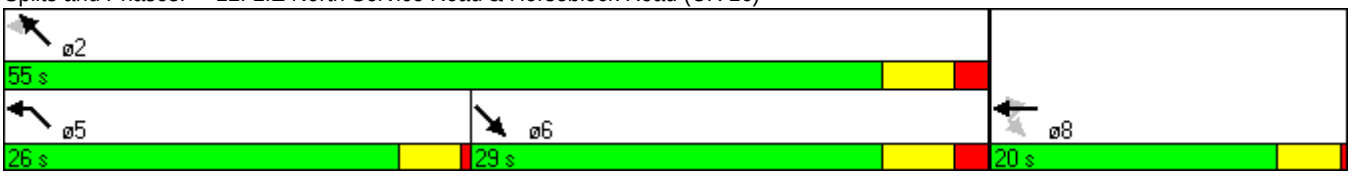


Lane Group	WBT	WBR	SET	NWL	NWT
Lane Configurations					
Volume (vph)	353	269	879	534	772
Turn Type		Perm		pm+pt	
Protected Phases	8		6	5	2
Permitted Phases		8		2	
Detector Phase	8	8	6	5	2
Switch Phase					
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	22.0	8.0	22.0
Total Split (s)	20.0	20.0	29.0	26.0	55.0
Total Split (%)	26.7%	26.7%	38.7%	34.7%	73.3%
Yellow Time (s)	3.5	3.5	4.0	3.5	4.0
All-Red Time (s)	0.5	0.5	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	2.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	14.8	14.8	28.2	54.2	52.2
Actuated g/C Ratio	0.20	0.20	0.38	0.72	0.70
v/c Ratio	0.69	0.62	0.68	0.90	0.63
Control Delay	33.2	13.5	23.3	31.0	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	13.5	23.3	31.0	14.8
LOS	C	B	C	C	B
Approach Delay	25.9		23.3		21.4
Approach LOS	C		C		C

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 23.1 Intersection LOS: C
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 12: LIE North Service Road & Horseblock Road (CR 16)

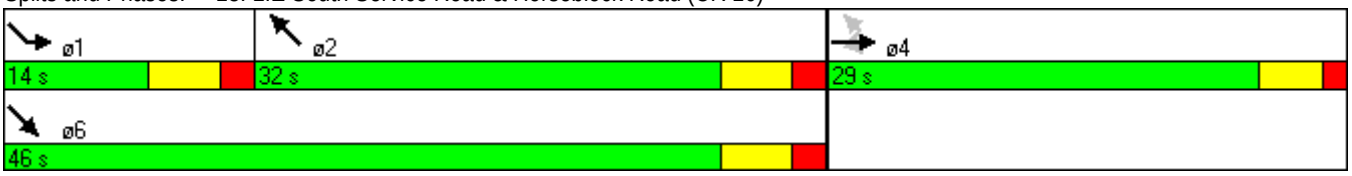


Lane Group	EBL	EBT	EBR	SEL	SET	NWT
Lane Configurations						
Volume (vph)	133	93	462	285	654	1141
Turn Type	Perm		Perm	Prot		
Protected Phases		4		1	6	2
Permitted Phases	4		4			
Detector Phase	4	4	4	1	6	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	21.0	10.0	22.0	22.0
Total Split (s)	29.0	29.0	29.0	14.0	46.0	32.0
Total Split (%)	38.7%	38.7%	38.7%	18.7%	61.3%	42.7%
Yellow Time (s)	3.5	3.5	3.5	4.0	4.0	4.0
All-Red Time (s)	1.5	1.5	1.5	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-2.0	-2.0	-2.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.6	21.6	21.6	10.9	45.4	30.5
Actuated g/C Ratio	0.29	0.29	0.29	0.15	0.61	0.41
v/c Ratio	0.24	0.18	0.87	0.67	0.36	1.61
Control Delay	20.3	19.3	32.5	45.2	7.4	303.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	19.3	32.5	45.2	7.4	303.6
LOS	C	B	C	D	A	F
Approach Delay		28.4			18.9	303.6
Approach LOS		C			B	F

Intersection Summary

Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NWT and 6:SET, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 138.3 Intersection LOS: F
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 13: LIE South Service Road & Horseblock Road (CR 16)



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	12	607	6	8	554
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	13	660	7	9	602
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL			None
Median storage veh)			2			
Upstream signal (ft)						910
pX, platoon unblocked						
vC, conflicting volume	978	660			666	
vC1, stage 1 conf vol	660					
vC2, stage 2 conf vol	318					
vCu, unblocked vol	978	660			666	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	97			99	
cM capacity (veh/h)	432	406			919	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	18	660	7	9	301	301
Volume Left	5	0	0	9	0	0
Volume Right	13	0	7	0	0	0
cSH	413	1700	1700	919	1700	1700
Volume to Capacity	0.04	0.39	0.00	0.01	0.18	0.18
Queue Length 95th (ft)	4	0	0	1	0	0
Control Delay (s)	14.1	0.0	0.0	9.0	0.0	0.0
Lane LOS	B			A		
Approach Delay (s)	14.1	0.0		0.1		
Approach LOS	B					

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	280	6	0	0	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	304	7	0	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	458					
pX, platoon unblocked						
vC, conflicting volume			311		304	304
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			311		304	304
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1250		688	735

Direction, Lane #	EB 1	EB 2	NB 1
Volume Total	304	7	0
Volume Left	0	0	0
Volume Right	0	7	0
cSH	1700	1700	1700
Volume to Capacity	0.18	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS			A
Approach Delay (s)	0.0		0.0
Approach LOS			A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		